

Food Plot Facts



Food plots are probably the most popular management practice when it comes to wildlife. Notice I didn't say the most important. I said the most popular. Not everyone will conduct a prescribed burn or fallow disk their fields, but many folks that manage property at one time or another will plant a food plot, especially deer hunters.

And why is that?

Some folks do it because they are trying to lure a big buck in for a shot while others are attempting to raise the nutritional plane of their habitat. Either way, it is unfortunate that many folks haphazardly throw seed on the ground and disk it under causing them and the wildlife that they are trying to help to not reap the full benefits of their efforts.

Hopefully at the end of this presentation you will

- 1) see the benefits of food plots and understand their impact over supplemental feeding,
- 2) how to properly prepare a food plot, and
- 3) think about some other things that go into food plots that may help you avoid some mistakes down the road that may cost you time and money.

Food Plot Facts

High-Quality Forage Availability

WTD require :
11% protein for body maintenance
16%+ for antler development/ lactation
~ 7 lbs./day (season & age) = ~ 2,555 lbs./yr.

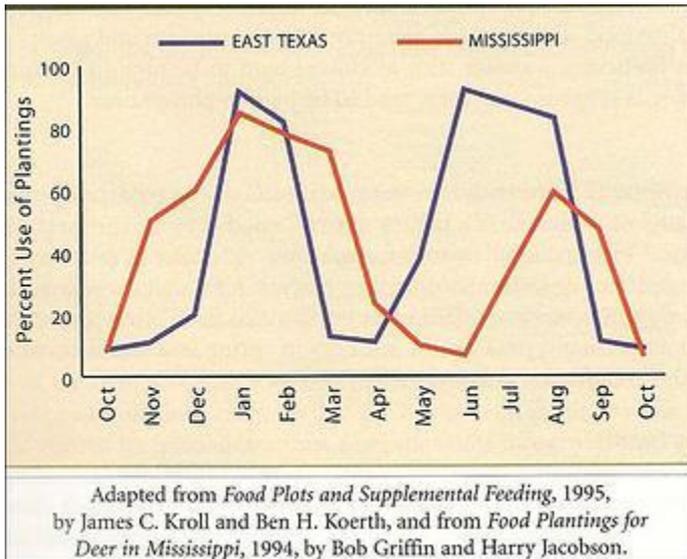


AR native vegetation =
7 - 9% protein
100-200 lb. per acre

Food Plots =
20%+ protein
1000+ lb. per acre

From research done in a couple other SE states, we feel that AR native vegetation is probably pretty similar in composition when it comes to protein content and availability, which is @ 7 - 9% protein and 100-200 lb. per acre. A great benefit of food plots is that they can provide both a greater protein content (20%+ protein) and in a much larger quantity (1000+ lb. per acre). Some food plots as much as 10-12,000 lbs. per acre depending on the planting.

Food Plot Facts



Not only that, but they can provide much needed high-quality vegetation during very stressful periods. Here is a chart of seasonal use of food plots. You can see that food plots are in high demand when native vegetation is limited (winter) and when native vegetation is in low quality (summer).

Food Plot Facts



Nutrition: Supplemental Feed

Free-ranging populations with average habitat:
WTD consume ~ 2 lbs. of supplemental
feed/day

So if they consume 25% of daily diet:
 $2.25 \text{ lbs. (20\%)} + 4.75 \text{ lbs. (9\%)} = 12.5 \%$ protein

1. Standing at feeder is not natural
2. Intestinal problems (acidosis)
3. More than 2 lb./day = degraded habitat
4. Very \$\$\$

Now just for a moment lets go back to the baiting and supplemental feeding slide and look at the usage of supplemental feed.

We said that Research in TX has shown that free-ranging deer populations with average habitat: WTD consume ~ 2 lbs. of supplemental feed/day, or about 25% of their daily diet.

The remaining 75% of their diet comes from native vegetation. If you take into consideration those amounts and the available protein present, that equals about 12.5%. Remember that we said that 11% is needed for body maintenance and ~16% is needed for optimal lactation and antler development.

Why is this...There are several reasons that deer do not utilize more feed than what is provided. And implementing a system like this requires a lot of \$. Take into consideration that feed cost ~ \$0.25/lb. that can run into some money.

Food Plot Facts

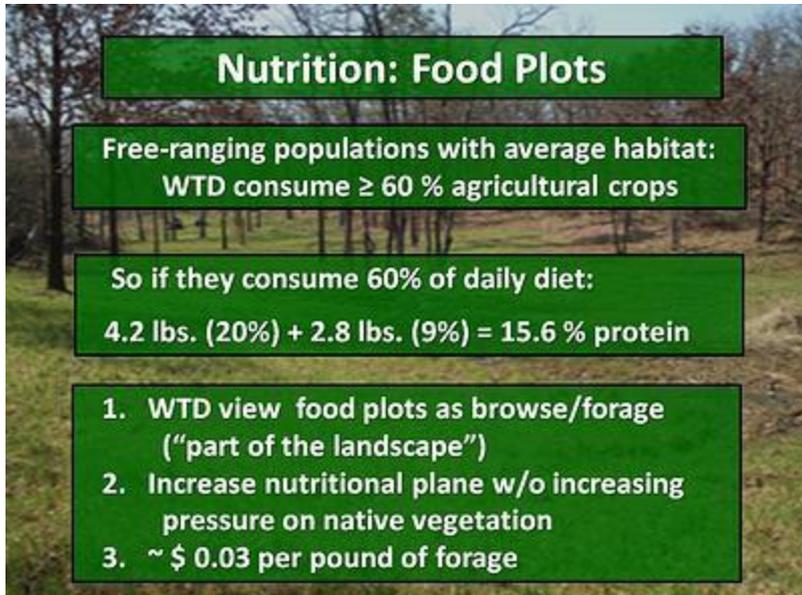
Now lets use the same rate of consumption per day of 7 lbs. and look at food plots utilization.

A study done in GA showed that when provided agricultural crops, deer will comprise upwards of 80% of their daily intake on that agricultural planting. Just for arguments sake, I'll use 60%.

The remaining 40% of their diet comes from native vegetation. If you take into consideration those amounts and the available protein present, that equals about 15.6%. Remember that we said that 11% is needed for body maintenance and ~16% is needed for optimal lactation and antler development.

Why is this... WTD use view food plots as part of the landscape...just as good food in large abundance. And if you remember back to the last slide show of habitat destruction associated with feeders, that doesn't happen here. Also compare the \$ value. The cost of feed ~ \$0.25/lb. or food plot forage ~\$0.03/lb.

So you can see that the nutritional and utilization of food plots is much greater than that of supplemental feed.



Nutrition: Food Plots

Free-ranging populations with average habitat:
WTD consume $\geq 60\%$ agricultural crops

So if they consume 60% of daily diet:
4.2 lbs. (20%) + 2.8 lbs. (9%) = 15.6 % protein

1. WTD view food plots as browse/forage ("part of the landscape")
2. Increase nutritional plane w/o increasing pressure on native vegetation
3. ~ \$ 0.03 per pound of forage

Food Plot Facts



Considerations

Goals?

So you may be sitting there asking yourself “how do I make an honest stab at food plots”? Well there are several things that you should know before heading down that path. The first thing that you’ll have to decide is “what is my goal”?

Food Plot Facts



Am I going to manage for optimal nutrition for deer or am I going to just try and attract deer?

Am I going to try and improve my forage availability and possible cover structure for wildlife like rabbits, quail, or songbirds?

Or are you going to try and manage for the elusive bigfoot?

Either way this will ultimately direct your choice of:

- 1) when you plant,
- 2) what you plant,
- 3) how you plant it, and
- 4) how much of it you plant.

Food Plot Facts



The second thing that you must consider, and I strongly emphasize must, is soil preparation. Taking a soil sample and properly adding the proper soil amendments in the right amounts is what is going to help you get the most “bang for your buck”...pun intended.

Food Plot Facts

Get your soil tested and understand the results. This could save you a lot of time and money.

What is your pH?

What kind of soil is it?

Know how much N-P-K and other nutrients are available

Soil Test
✓ Free (UAEX)
✓ Several samples

Know how much additional N-P-K is required (lbs./acre)

Know how much lime to apply

The image displays a 'Soil Analysis Report' from the University of Arkansas. The report includes a header with the university logo and name, a 'Sample Information' section with fields for name, date, and location, and a 'Nutrient Availability Table' with columns for nutrient, units, and status. A 'Soil Properties' section lists characteristics like texture, pH, and cation exchange capacity. A 'Recommendations' table provides specific advice for N, P, K, and lime application. Callout boxes with arrows point to these various sections, highlighting their practical importance for food plot management.

Food Plot Facts

It's Time to Lime

- Without lime, fertilizer is practically useless! Lime allows plants to utilize plant nutrients.
- Lime works by adhering to H⁺ ions and neutralizing acidic soils.
- Most soils in our area are < 5.5 (very acidic): 2 tons/acre common.
- Liming should be conducted at least 6-8 weeks prior to planting.
- Bulk Ag lime vs. pelletized lime vs. liquid lime

Bulk lime- less expensive, quicker to react with soil, harder to apply in isolated locations with limited access.

Pelletized lime- more expensive, takes slightly more time to react with soil, easier to haul in and spread with an ATV if location has limited access.

Liquid lime- somewhat expensive, reacts very quickly with soil but also leaches deeper into the soil strata quicker (causing it to not be as effective for longer periods of time than that of bulk and pelletized lime), be sure to clean out spray tanks thoroughly after application as it will ruin a sprayer by clogging it up

Food Plot Facts

Is your N-P-K Ok?

- Nitrogen, phosphorus, and potassium are the elements most greatly required by crops (i.e. plant food).
- N- Nitrogen: important building block of plant protein
- P- Phosphorus: necessary for growth of roots and leaves (a primary component in antlers)
- K- Potassium: essential for plant metabolism and growth
- Do you really how much N-P-K is in a 50# sack of 13-13-13 or 0-46-0?

The next step to getting your soil right for planting is the application of fertilizer. Read slide information.

And, most everyone that plants a food plot applies fertilizer, usually Triple 13 (13-13-13). Unfortunately it is usually not the right fertilizer. Lets take a look at a fertilizer example.

Food Plot Facts

Fertilizer Example

- My soil test shows that I currently have 10 lbs. N, 8 lbs. P, & 148 lbs. K per acre available.
- Clovers require 0-30 lbs. N, 90 lbs. P, & 90 lbs. K per acre.
- How many bags of 13-13-13 do I need?
- One 50# sack of 13-13-13 = 7.5 lbs. N, 7.5 lbs. P, & 7.5 lbs. K.
- I would way get too much N and K and it would take 11 bags to get enough P.
- What I need is 0-46-0. A 50# sack will give me 23 lbs. of P. So I would need 4 bags.

So understanding you soil test is important to not only providing the right nutrients to the soil but to also saving yourself some work and money.

Food Plot Facts



The next thing to consider is to know what seeds you are planting and what those plants' needs or limitations are.

Food Plot Facts



Certain seeds/plants require highly porous soils that drain quickly while others do well in high clay soils.

Seed to soil depth and planting depth is critical. Smaller seeds only need to be planted upwards of ¼" while larger seeds can be planted to 1". Planting seeds too deep or too shallow often results in something not coming up. This is a drawback of purchasing many pre-commercial mixes which contain both in a mix.

Clovers require a certain bacteria to reside on their roots that promote nitrogen fixation.

Since clovers fix their own nitrogen from the soil, they do not require much if any nitrogen in the fertilizer that you may be applying. Corn on the other hand requires a lot of fertilizer.

Certain plants like white clover and soybeans are susceptible to over-grazing. Too much grazing early on may cause a stand failure. Planting a mixture will help with this obstacle.

Some plants require a lot of sunlight while others not so much. Plot design will be crucial to helping determine what can be planted in some food plots.

Food Plot Facts



That leads us into considering food plot design. Not only does the seed depend on it, but it also may help or hurt in achieving the goal of your plot. What I mean is your plot designed for providing maximum nutrition in large quantities or is it designed to allow you to make a good close bow kill.

Food Plot Facts



Size: large vs. small plots. Large plots lend themselves to supporting the food plot plants that are susceptible to early grazing while smaller plots would fail if planted in the same species. Smaller plots are more thought of as harvest plots.

Shape: square, circular, linear, figure-eight. Be sure to design to the shape that will not only meet your hunting needs but also your light requirement and planting needs. Smaller plots should be oriented east-west when possible in order to take advantage of available sunlight.

Interior islands: In larger plots, leave clumps of shrubs and trees. These will provide for cover in the center of the plot and if it is a hard mast producing tree like an oak, it will benefit from the lime and fertilizer that you add to the plot itself.

Fruit trees: Now if you live in bear country this may not be such a good idea, but planting fruit trees will offer another dish to the buffet. Plums, pears, and apples are all favorites of deer. Be sure to protect the trunk of the planted tree and it may not hurt to protect the leaves as well for a couple of years. An enclosure fence constructed of chicken wire will help achieve both.

Near cover: Always, always, always near cover. This will improve your chances of seeing deer within shooting light and increase the time that deer will spend near the plot, thus increasing the time that they use the plot. This may be as simple as creating edge habitat all the way around the plot. I'll discuss edge habitat further in the next presentation.

Food Plot Facts



Considerations

Goals?

Soil preparation

Know your seed

Food plot design

Overall habitat picture

The last and probably the most important consideration is the overall habitat picture.

Food Plot Facts

Food plots are an important part



Food plots can be a very important part of any habitat management plan. Habitat is what determines what can live in any particular location. The quality of that habitat helps to determine the abundance and quality of the wildlife that inhabits it. Food plots alone cannot “fix” all the other limitations present on a property or an area. Addressing those inadequacies will improve how well your food plot performs on the landscape.

Food Plot Facts



Here are the summarized tips on how to improve your food plot usage for deer and other wildlife.

Food Plot Facts



UA Extension Publications

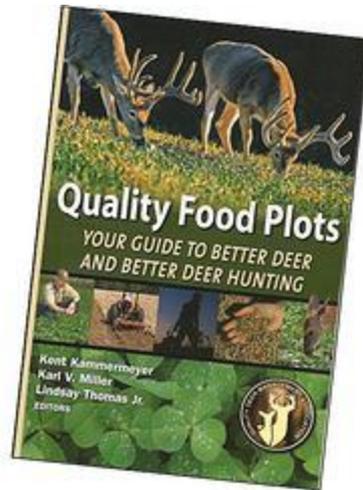
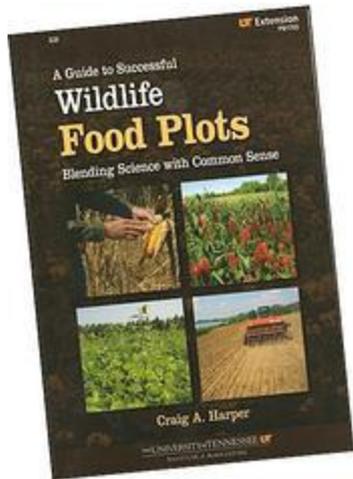
← Excellent source for chemical recommendations/names/rates for food plots



← Good general information

Here are some free publications produced by the UA Extension Service that may prove to be helpful in establishing food plots.

Food Plot Facts



Food Plot References

Here are some other useful publications that can be purchased. These provide a great deal of information, anything from planting information to food plot design.

Food Plot Facts



Remember that animals are what they eat, and that plants are a vessel by which proteins and other nutrients come from the soil to the animal. Better quality plants make for better nutrient vessels.