Wildlife Food Plots Equipment and Installation
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Equipment Needed for Planting and Maintaining Food Plots

The equipment one needs to plant and maintain food plots differs dramatically based on the size of the plot(s), how many plots, and where they are located. Small plots can be installed with very limited equipment, but as the size of plots and number of plots increase so does the amount and size of equipment needed to effectively get the work done.

Before any work begins one should evaluate what equipment is needed for the plot(s) to be installed and determine if owning equipment is necessary. You may be able to rent what you need cheaper than buying. Large pieces of new or used agricultural equipment can be expensive and may be prohibited by your budget. Some dealers and Soil & Water Conservation District's have equipment rental programs that may fit your need. A neighbor in the area may also rent equipment to you or do the necessary work for a nominal fee. Checking out all options is worth a little time when you are first getting started.

Seedbed preparation is critical to successful food plot installation in most every case. No-till planting equipment can be used effectively where herbicides have been applied properly to reduce competition from other weeds/plants. Conventional tillage requires different equipment than no-till planting, but provides a clean, clear seedbed to enhance soil to seed contact when small seeds are being planted.

Small Food Plot Equipment

ATV- A medium to large scale ATV may be used in growing small-scale food plots if a tractor is not an option. This ATV should however, be large enough to handle all of the necessary equipment you will be using. Most equipment manufacturers give a minimum engine size needed for their specific product. Remember too, most ATVs are not designed to tow heavy ground tilling equipment so excessive wear and strain on the transmission or drive train may become a problem. Slowly pulling heavy loads can cause engines to overheat when operating for extended periods of time. Be sure to follow manufacturer's recommendations. Some jobs may just need a tractor.

Disk- A disk is handy tool for food plot installation. The disk may be used to provide a proper seedbed where soils are somewhat loose and have little thatch on the surface. Good seed to soil contact must be made if plants are expected to grow after seeding. Hard soils or sod generally can not be broken up by a light disk that an ATV can pull. A plow may be necessary.

Plow- A small moldboard plow for lawn/garden tractors or ATVs is available and may fit small-scale food plot installation needs. Plows loosen hard soil, breaking up thatch and may be used to turn sod over before disking. Small plows can be used to turn over 6-8 inches of soil, but deeper depths may require larger equipment.

Cultipacker- Prior to seeding clover and other small seed, cultipackers can be very helpful in firming the soil and obtaining maximum plant growth. Small-scale models like the one pictured here are available for ATV use.

Sprayer- A sprayer is helpful to apply needed herbicides. This can either be a backpack sprayer or a model that can be mounted on or pulled with your ATV. Brush and weed control may be accomplished using the correct herbicides. Always wear the proper personal protective equipment when applying pesticides. Remember: The Label is the Law!

Spreader- There are many different types of spreaders that are available for applying seed or fertilizer. An over-the-shoulder broadcast spreader can be used for both fertilizer and seed. It is cheap and ideal for small food plots. Other models can be attached to an ATV or pushed by hand.

Mower- A mower is often necessary to help control weeds and manage overgrown plots. Perennial plots should be mown periodically to produce high quality forage. Pull-behind models for ATV's are available and easy to use. Also, before tilling the soil, tall weedy vegetation can be removed using a mower to make tilling with small equipment easier.

Combination Tool- Specialty type equipment is also available for those installing food plots with ATVs. This equipment is designed to carryout all steps necessary in preparing and planting seedbeds for food plots using various attachments designed for the tool.

Chainsaw- For the small woodland owner a chainsaw may be the most important piece of equipment you can buy. When used properly, to selectively cut or trim trees and brush, a chainsaw can promote new growth and provide tender lush food sources for wildlife. Opening areas in a woodland allows light to penetrate and new vegetative growth results. Always wear protective equipment when operating a chainsaw!

Large Food Plot Equipment

Tractor- A tractor is necessary for any large-scale food plot operation. The size, number, and accessibility of your plots will determine the size of the tractor needed. They range from just a few horsepower to well over 100 horsepower. The terrain you will be working and workload you will be placing upon your tractor will determine whether or not you need four-wheel-drive.

Disc- Many sizes and configurations of discs are available. Three point hitch models exist or larger remote hydraulic types for larger tractors and bigger jobs may be used.

Plow- For deep tillage a moldboard plow may be necessary to turn the soil and to break up heavy thatch that has accumulated on the surface.

Rotary hoe- A rotary hoe (or rotovator) is similar to a large rototiller, but it operates from the power takeoff and three point hitch of a tractor. These units are generally used where finely tilled seedbeds are desired or where small plots are being installed. After tilling with a rotary hoe, use a cultipacker to firm the seedbed before planting. Test the area for correct firmness by walking in the plot. The soil should be firm underfoot leaving a footprint, but no more than an inch in depth.

Cultipacker- A cultipacker is a useful tool used to firm soil in a seedbed before drilling seed or broadcasting seed. Some drills

are designed to firm the soil at the time of planting with packer wheels so a cultipacker may not be necessary, but others have no capability to accomplish this so a cultipacker should be used. This is especially true when very small seeds such as ladino white clover are to be planted. When broadcast seedings are made, cultipackers are excellent tools to pull over the area before and after seed is distributed to first firm the soil before seeding and second to insure good seed to soil contact after seeding. A cultipacker is a much better tool to use after broadcasting seed than dragging a piece of fence or another object over the area to cover seeds. Depth of seed coverage is critical and firming is much more uniform with the cultipacker.

Drills and Seeders- No-till drills or conventional seeders, when operated correctly, place the seed in the soil at the correct depth to promote high rates of plant survival after germination. If seeds are planted to deeply, after germination the new plant may not have enough energy to push the emerging shoot to the surface where it can obtain sunlight to sustain growth. If seeds are planted to shallow germination may take place then surface drying may cause the plant to die and a poor stand results.

Drills and seeders have separate boxes so large and small seeds can be divided when planting. You can place them at different depths by making the proper adjustments on the drill.

Note- *Large and small seeds in the same mix can be a problem. Many seed companies are putting out seed mixtures that are destined to be partial failures. When two or more very different size seeds are mixed together, part of the seeds may not be planted at the proper depth to allow each seed to exhibit good growth.*

Sprayer- A sprayer is often necessary to maintain high quality high yielding food plots. Weeds need to be controlled before planting in no-till situations and in some conventionally tilled plots. Weeds such as Canada thistle and Johnsongrass are extremely competitive perennial plants that should be eradicated from the area to be planted before tillage or seeding begins.

Rotary Mower- To maintain perennial food plots in a lush vegetative state mowing will be necessary during the growing season. Mowing alfalfa or clover plots once or twice a year helps reduce grass and weed competition in food plots.

Fertilizer spreader- Nutrients in the soil feed forage plants and are critical to maintain long lasting and high yielding food plots. Soil samples should be taken and sent to a laboratory for analysis to determine the amount and blend of fertilizer to use.

Lime spreader- Spreading lime is important if you need to increase soil pH. Applications rates of 2-3 tons per acre are not uncommon in Ohio so a large-capacity spreader may be necessary. Often, buggies may be rented from a local agricultural store or the Soil and Water Conservation District in your area if you have a tractor large enough to pull them. Agriculture commodity stores also have lime spreader trucks many times. Their drivers will make the lime application for you if you purchase enough products from them. Your terrain must be suitable for this type of equipment use however.

Corn planter- No-till and conventional corn planters are available. Many times these pieces of equipment may be rented from Soil and Water Conservation Districts for a relatively small fee. Most of these units require hydraulic hook-ups for proper use, but some three-point hitch models are also available.

Frost seeding- Frost seeding is a way to add more seed to an existing stand yet no tilling of the soil is required. If your food plot has bare spots and you can see the soil, frost

seeding may work to thicken the stand. Apply clover seed in February or early March so several freeze and thaw cycles occur after planting. This aids in getting seed in contact with the soil.

When Using Equipment -Safety should always be considered when using and working with equipment. Be sure to keep shields and guards in place while the equipment is running. Wear protective gear when recommended and do not allow riders unless the machinery is designed for more than one operator.
-Any equipment one chooses to use should only be operated when soil conditions are suitable. Compaction can become a problem if to much soil moisture is present while working in a food plot.
-Preparing, planting, growing and maintaining successful food plots require specific skills. Learn by asking questions and observing others before you attempt to install your own food plot(s) you will increase your chances to have a successful and rewarding experience.

Installing Wildlife Food Plots

Fertility

Fertility management for wildlife food plots is an extremely important tool that should be considered in the selection, establishment and management of the desired food source. Soils are not all created equal, each has a different ability to retain moisture, and soil nutrients. A soil survey can be utilized to view the yield potentials, drainage characteristics, and ultimately the suitability the site for a wildlife food plot. The soil type of Ohio soils is publish for each county and is available from the local Soil and Water Conservation office or may be found at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

Once the soil productivity has been considered we need to soil test the plot area. Your local Extension office can provide a soil testing probe and instructions on proper soil sampling technique. The Agriculture Extension Educator can also help in the

interpretation of the soil testing results. Soil samples should be collected either in the fall or in the spring. It is important that, a soil sample be representative of the growing area. Therefore, collect 20 to 25 soil cores throughout the growing area to a depth of seven to eight inches for a conventionally tilled area. Thoroughly mix the samples together to form a composite. A subsample of the composite is then mailed to a testing lab. Soil samples should be collected every three years depending upon soil conditions. The cost of a standard soil test is approximately $14.00.

Commercially sold fertilizers, both organic and inorganic, have three numbers printed on the bag or container. These numbers represent the percentage of nitrogen (N), phosphorus (P_2O_5) and potassium (K_2O) in the product. For example, 10-10-10 fertilizer contains 10 percent nitrogen, 10 percent phosphorus and 10 percent potassium and in that order. Fertilizers may contain all three major nutrients or only one or two of the nutrients. Urea, for example, which is a common nitrogen source has an analysis of 45-0-0, and contains 45 percent nitrogen with no phosphorus or potassium.

For most crops and soils, optimum soil test values should be within the ranges indicated in Table 1.

Table 1: Soil Test Values for Forages

Soil Nutrients	Grasses ppm (lb/acre)	Tall Grass/Legume Mix	Alfalfa and Other Legumes
Available P[1]	15-30 (30-60)	25-40 (50-80)	25-40 (50-80)
Exchangeable K	The critical level for ppm K = 75 + (2.5 x CEC) for all crops.		
Exchangeable Ca	200-8,000 (400-16,000)	200-8,000 (400-16,000)	200-8,000 (400-16,000)
Exchangeable Mg[2]	50-1,000 (100-2,000)	50-1,000 (100-2,000)	50-1,000 (100-2,000)
Available Mn	10-20 (20-40)	10-20 (20-40)	10-20 (20-40)
Available B[3]	0.25 (0.5)	0.25 (0.5)	0.25 (0.5)
Available Zn	1.5 (3.0)	1.5 (3.0)	1.5 (3.0)

Soil pH Recommendations and Lime Test Index (LTI) for Forage Crops

Crop	Mineral Soils with subsoil pH		Organic Soils	(LTI)
	> pH 6	< pH 6		
Alfalfa	6.5	6.8	5.3	69-70
Other legumes	6.0	6.8[4]	5.3	68-70
Tall Grass	6.0	6.5	5.3	68-70

[1] When soil test values fall below the lower limits of the listed ranges for available P they reach the "critical level." When soils are below the critical level the soil is not able to supply the requirement of the crop. If soil test levels are above these values follow OSU fertility recommendations for crop removal.
[2] These limits vary widely depending on cation exchange, calcium to magnesium ratio, and percent base saturation.
[3] Sandy soils with low organic matter may experience boron deficiencies.
[4] Birdsfoot trefoil should be limed to pH 6.0.

Soil pH

Soil pH has considerable influence on forage quality and plant growth. The pH scale is from 1 to 14. A neutral solution of soil has a value of 7.0. The soil pH is of utmost importance in plant nutrition, as it has an influence on many crop nutrients. Soil may naturally become more acidic due to the leaching of basic cations, primarily calcium, magnesium, potassium, and sodium. Furthermore, when the plant takes up these basic cations, they are replaced with hydrogen, contributing further to acidifying soils. Fertilizers may lower soil pH. Most forage plants have optimum growth when soil pH is between 6.0 and 7.0. Lime recommendations are based on many factors. Among the most important are soil pH, soil buffering capacity (buffer pH), crop to be grown, plow depth, and lime history. The most common way to increase the soil pH is to apply lime. Common agricultural liming material include burned lime, hydrated lime, carbonate lime, agricultural limestone, pulverized agricultural slag, etc. If lime is recommended, spread the prescribed amount and work it into the soil. It is generally recommended that we limit lime application to four tons per acre annually.

Types of Lime

When financial constraints require a choice of using fertilizer or applying needed lime, usually lime is the best choice. The ability of lime to neutralize pH is measured by the Effective Neutralizing Power (ENP). The effective neutralizing power of lime is expressed on the basis of pounds per ton as a percentage of the fineness index, multiplied by the total neutralizing power and percentage of dry matter. The decision of whether to use dolomitic or calcitic lime should be based primarily on the amount of magnesium available as indicated by a soil test. The calcium to magnesium ratio is calculated on the basis of percent saturation of the soil cation exchange capacity (CEC) by each element. If the calcium to magnesium ratio is 1:1 (or less calcium than magnesium) a calcitic lime should be purchased. When both calcium and magnesium are needed, buy dolomitic lime. Liming materials vary significantly in terms of purity, fineness, and moisture. These factors help us select the most economical source of lime and determine the application rate of lime. Fortunately, state law, sections 905.51 to 905.66 of the Ohio Revised Code, requires lime manufacturers to label lime products. The most important item on the lime product label for determining application rate and value is the Effective Neutralizing Power (ENP).

The lime application recommendation is usually provided on the soil test recommendation as a calcium carbonate equivalent basis and is specific for the crop, soil, lime history, and tillage depth indicated on the test submission form. This means that we must adjust the application of the liming material up or down based on its ENP. OSU Extension Factsheet ANR-9-02 can be utilized to adjust lime application based on the ENP. This Factsheet is available from your local Extension office or at: http://ohioline.osu.edu/anr-fact/0009.html.

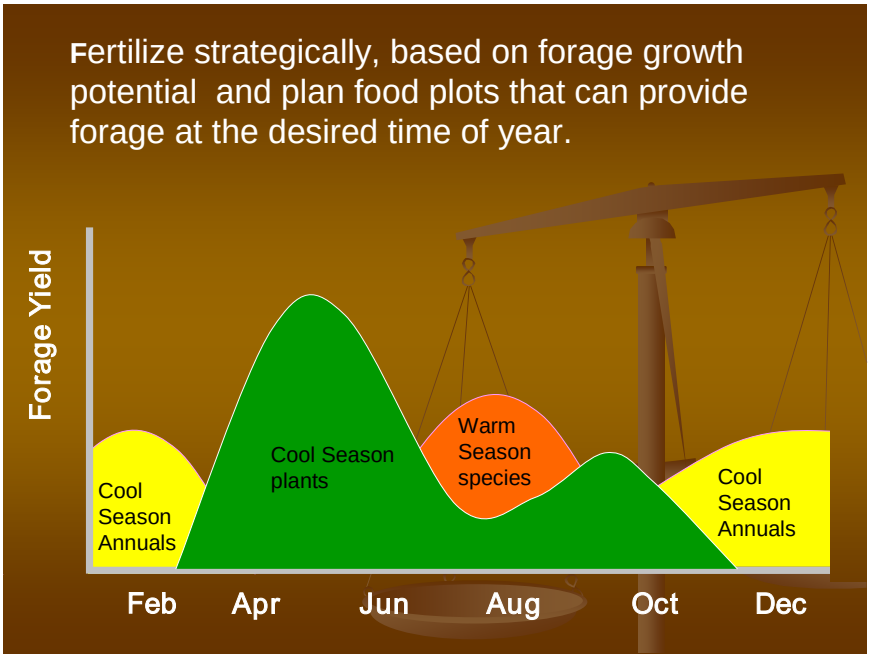
Use of Nitrogen (N)

One way to save money and fertilizer is to establish and manage for legumes in food plots. Legumes have the ability to capture nitrogen from the atmosphere and fix it in nodules on the roots. Below ground nitrogen-fixing rhizobia make excess nitrogen available through the leaking of nitrogenous compounds and sloughing off and decay of nodules and roots.

The amount of nitrogen fixed varies depending on the type of legume, stand density, initial soil fertility, and the amount of leaf surface on the legumes. There are two main problems with adding nitrogen to a mixed stand of grasses and legumes. Grasses and annual small grain forages respond to a nitrogen application by growing leaves. This results in increased shading of legumes that typically occupy lower portions of the canopy. The greater competition for sunlight generally reduces the amount of legume in the stand. Second, nitrogen fertilization of mixed stands causes legumes to use nitrogen supplied by fertilizer and reduce fixation of nitrogen from the atmosphere. If the food plot is a combination of grass type plants and legumes, estimate the percentage of legumes in the stand. Ohio State University fertilizer recommendations omit application of nitrogen fertilizers when the forage is made up of 35 to 40 percent or more legumes. When the percentage of legumes in the stand is below 20 percent, the plots may benefit from a nitrogen application.

Strategic Use of Nitrogen

Use nitrogen to stimulate growth. Actively growing plants best utilize nitrogen (N). Therefore, consider the time of year and the potential for plant growth prior to a nitrogen application. The diagram below illustrates the growth potential of cool-season perennial plants such as ladino clover in green, warm-season annuals such as crimson clover in orange, and cool season annuals such as oats, wheat or rye in yellow.



When possible time the nitrogen applications to a light rain, ¼ to ½ inch rainfall event. Applications of urea-based fertilizers in summer may result in significant losses of nitrogen. If 0.5 inch of rain is not received in three to four days after an application of urea, then volatilization of the urea can be significant. If urea-based fertilizer blends are utilized as the nitrogen source (46 percent N), they can be best utilized when placed in direct contact with the soil. Otherwise, consider purchasing sulfur-coated urea when surface applications are made during dry and hot periods. Ammonium nitrate (34-0-0) fertilizer blends can remain relatively stable with surface applications and would be a good choice when volatilization is expected. However, when the soil is wet and is likely to leach, the ammonium N quickly converts to nitrate N and is lost as nitrogen gas (N2). Diammonium phosphate--DAP (18-46-0) and ammonium sulfate (21-0-0) are also non-volatile sources of nitrogen and can be applied during hot and dry weather without significant losses. DAP should only be used in areas where phosphorus is needed. Ammonium sulfate experiences very little surface volatilization and is a good source of sulfur. The disadvantage of ammonium sulfate is that it is very acidifying to soil, requiring two to three times as much lime to neutralize the same amount of acidity as formed by other common nitrogen carriers.

Utilize nitrogen in split applications and in relatively small amounts to maximize efficiency. For example, apply nitrogen in 30-50 pounds of actual nitrogen per acre increments when forage oats and or annual ryegrass emerge in September and consider another application of another 30 units of actual nitrogen per acre in mid-October. Food plots will grow to their full potential when utilizing split applications of nitrogen. A light application of nitrogen (20-40 pounds N/A) in March will jump-start spring growth of cool season winter annual plants and allow for earlier grazing/browsing. Moderate amounts of nitrogen (30-50 pounds N/A) applied at 30-40 day intervals throughout the growing season on cool season annual grasses can stimulate consistent growth. However, some cool season perennial plants as illustrated in the green area above are not growing well in July and therefore may not be able to utilize nitrogen effectively. The last application of nitrogen for the year on a cool-season annual forage should be made in October or early November. Utilize nitrogen on warm season annuals at the same application rates when they begin to grow and at 30 to 40 day intervals. Specific recommendations for N-P-K are provided when completing a soil test.

Phosphorus (P)

Losses of phosphorus under grazing/browsing conditions are minimal. Animals remove only small quantities of phosphorus and potassium. Since phosphorus is tightly held by the soil colloids, maintain soil test level of 15-25 parts per million (ppm) phosphorus, and apply supplemental phosphorus according to soil analysis recommendations. The critical level is basically the soil test level above which the soil can supply adequate amounts of a nutrient to support optimum economic growth. Grasses have a critical soil test level for phosphorus at 15 ppm and legumes at 25 ppm.

Potassium (K)

Animals remove relatively small quantities of potassium. Ninety percent of excreted potassium is contained in urine with the balance found in manure. Major losses of soil potassium are through forage removal and leaching. The critical soil test levels for potassium are 125-200 ppm. Plants have the ability to take up more potassium than they need. This is called luxury consumption. This can occur when there are low or high soil levels of potassium. High concentrations of potassium can also affect magnesium uptake by plants. This cannot only affect the plant physiology but can also cause metabolic imbalances in animals that consume mainly forages. The metabolic imbalance in animals is usually referred to as grass tetany.

Timing of Phosphorus and Potassium Applications

Research shows that if applying phosphorus and potassium one time per year, then fall is the best time for the application. By applying phosphorus and potassium in September or October, plants develop a healthier root system which may improve winter survival. This results in a plant better able to withstand drought the following year. If high rates of phosphorus and potassium are recommended, then there is an advantage to splitting the application, one-half of the recommended amount in the spring and the remainder in the fall.

In Closing

Fertilizer and lime and is expensive guesswork. Have your plots soil tested. The first priority in the fertility program should be correcting soil pH. Utilize agricultural liming sources and consider the concentration of Ca and Mg in the liming material. Utilize nitrogen strategically, by applying small amounts of actual nitrogen at 30-40 day intervals and no later than 30 day before the end of the growing season. If phosphorus and potassium are needed, consider splitting the application, half of the recommended amount in the spring or at planting and the remaining in the fall.

Where, When and What to Plant

Planting location of the food plot has several important considerations. I hope that you have considered fertility and soil productivity as discussed in the previous section. Making note of these potential food plot areas based on soil productivity we look at them on an aerial photo of the managed property. Some of the areas may eliminate themselves when viewed on the aerial, and we consider access to the plot with machinery or relation to bedding areas. Is there a need to access the plot during the hunting season? Is the location of the plot and access influenced by prevailing winds? These are all important factors when selecting the plot location.

Aspect, or relation to the sun in and important consideration when selecting a food plot area. For example, if my goal were to provide fall forage that attracted deer in October and November, I would want productive soil with a south or southeast facing aspect. This orientation would provide the longest potential growing season in southeastern Ohio. Food plots will perform best when they are exposed to daylong sun. Sites that are subject to seasonal flooding and steep slopes are generally poor locations for food plots. This paper focuses on conventionally seeded food plots however; managing the woodlot for crop trees is equally important and is usually more practical. We have determined our food plot location; next let us discuss what and when to plant.

What and When to Plant

As the manager of a food plot, we have to be realistic when assessing our management capabilities in regards to the crop to be grown. The crops we can grow all have various levels of management that can and will influence productivity and persistence. In some cases, the food plot managers are absentee landowners and they return to the plot site for a limited time during growing season. In other cases, the plot manager lives on site and can perform cultural practices on frequent and timely basis. Therefore, the correct plot crop to be grown takes into consideration; site, soil/fertility, drainage, aspect & slope, yield & time of yield, ability to hold up to browsing, persistence, palatability, nutritional value, species of wildlife to attract, management, ease of establishment, machinery investment and cost. Below are a selection of the most popular food crops grown and their characteristics.

Corn

Comments: Corn is a warm season annual grass and can be planted from March to June. It may be difficult to establish as a small food plot since the young plants are sensitive to excessive browsing when germinating and growing. This plant provides cover and yields a tremendous amount of palatable energy in the fall. It can be interseeded with winter annuals such as oats annual ryegrass and turnips. This combination would provide a combination of high energy, high protein feed late into winter and possibly spring. If there are fields of corn being farmed adjacent to your hunting area, consider asking the farmer if you can purchase several rows to be left for wildlife.

Alfalfa

Comments: Alfalfa is a cool season perennial legume. It is often referred to as the queen of forages. Alfalfa is high yielding, of great nutritional quality and highly palatable. However, as a food plot forage it has major disadvantages. This forage does not hold up well to uncontrolled browsing. The plant needs extended rest periods to replenish energy reserves. It re-grows from leaf-tips or the crown at the base of the plant. Deer tend to eat the most succulent portions of the plant and feed at the leaf tips. This will limit total annual production and cause the rest of the plant to become more fibrous. There are varietal differences in alfalfa grazing tolerance, yield and potato leafhopper resistance. Alfalfa should be monitored for insect pests including potato leafhopper and weevil. Alfalfa grows best in areas that are well drained and have a pH of 6.0-7.0. For the reasons mentioned above alfalfa is difficult to manage in a food plot area.

White Clover

White clover is among the most persistent, highly palatable legumes we can establish in a food plot. It is a cool-season legume and will produce all summer long until it receives a killing frost in early winter. White clove tolerates close and frequent browsing. This plant is adaptable to a wide variety of soil pH levels, and soil moisture levels. Of all the legumes, ladino and white clover are the most utilized in wildlife seed mixtures.

Ladino Clover Frost Seeded into the previous plot in March @ 8lbs/A

Brassicas

Turnips/Kale/Rape "Brassicas" seeded into Roundup treated, light disc, & broadcast 5 lb. A

Brassicas members of the turnip family are cool-season annual plants. They are easy to establish and high yielding. These plants will tolerate a wide variety of soil fertility and drainage characteristics. The forage is most preferred after a light frost and if planted the last week of August will yield well by the end of October. Brassicas vary in the amount of bulb and top development. Turnips tend to have the largest bulb to top ratio while kale and rape have more top than bulb. The bulb can remain a source of forage late into winter while the tops will begin to deteriorate after a couple of hard freezes.

Annual Ryegrass & Oats

2 applications of Roundup, July & 1st week of Aug.
Planted Aug. 25th Spring Oats 2bu/A & annual ryegrass 30 lbs/A, broadcast by hand.

These two are perhaps the staple of wildlife food plot forages. Annual ryegrass and spring oats are both high yielding and highly palatable cool-season annual forages. Both are very easy to establish and tolerate a wide variety of soil fertility levels and drainage. The forages are most palatable when dark green and leafy. Once the seed germinates, a light application of approximately 50 units of actual nitrogen per acre is needed to stimulate growth and improve palatability. Annual ryegrass, wheat, tritical, and cereal rye will grow throughout the early winter and will begin to grow once again in the spring. Most of the production for cool season annual small grains and annual ryegrass will occur in the spring while late summer planted oats will yield in the fall. Oats will stop growing after several successive freezes. Oats have the highest potential fall yield of the small grains and will produce nearly double that of annual ryegrass in the fall. These winter annuals can be planted together or in combination with other annuals.

Winter Wheat

Spring oats 1.5 bu/A, 1bu winter wheat/A, 30lbs annual ryegrass/A. Plot had one application of Roundup, July, light disc, and broadcast planting last week of Aug.

Winter wheat is a nutritious winter annual that is highly palatable. It has a moderate fall yield with rapid growth in the spring and is probably better utilized when in combination with other annual forages when used in a food plot.

Soybean

Soybeans are a popular summer annual. It has been obvious to farmers and hunters that deer will browse soybeans throughout the summer and well into harvest. Beans are of high nutritional quality and very palatable. However, soybeans do not regenerate well after browsing and will do best in large fields. Small acreage under heavy browse will not yield significant forage.

Chicory

Chicory is highly palatable, nutritious perennial forage that is adaptable to a moderately wide variety of fertility, and drainage characteristics. Chicory responds well to browsing, yields well and is highly drought tolerant. It not easy to establish, does not take competition well and is clump forming. Chicory can be managed by itself or included in a forage mixture. However, chicory is probably best utilized when included in a perennial mixture with a clover.

Crimson Clover

Crimson clover is a high yielding summer annual legume. It is tolerant of moderate pH levels and does best on well drained soils. This legume will peak in production during the summer months and will be killed by frosts in the fall.

Kura Clover

Kura clover is an extremely persistent, highly nutritious, spreading, perennial legume. Its greatest fault is that it is difficult to establish. However, it is most worthy of consideration as one of the legumes to include in a perennial food plot.