Recommended Perennial and annual seed blend

As we go along life's path we should add to our knowledge and since the last food plot book "Wildlife Food Plots, Easy as 1-2-3", I think that I have. Please allow me to add to the picture. I do not normally tell anyone a food plot tip or practice until I'm quite sure that I have covered the bases. I have been researching and looking for better seeds and food plot planting techniques for years and I do not intend to stop now. So, as of the spring of 2005 here's the latest as I see it.

An excellent seed mix that I have been experimenting with for the last few years is a blend of both annuals and perennials. I first came to the suspicion that both annuals and perennials are necessary as an improved seed blend when I planted a field of Biologic Premium Perennial in early May 1999. The annuals consisted of several varieties of forage rape and kale, while the perennials were mostly several clover varieties plus plantain and chicory. Rather a large number of different seed types and varieties within a seed type. Hmm, what is this stuff and why mix annuals with perennials?

Well, let's see, I have been planting both a brassica blend (an annual) and a legume perennial meadow mix blend for many years. I was more than impressed with both seed blends and at some of my more bold moments I did mix them together, but paid little attention to the results. Only after planting the Biologic blend did I start to pay attention. What does Dr. Grant Woods know that I do not?

The Biologic planting took off with the brassicas taking a big lead. I checked often to see what was happening and noted that the clovers were growing but not super for the brassica leafs were shading the clovers. I did note another surprising event. When I plant a legume early in May I almost always get a lot of weed competition. To combat this, I usually till the intended field first and as early as possible, then when the weeds appear, I zap them with roundup spraying. That same day usually in late May or early June I drill in the legume without any tillage and with normally acceptable results. I did not do this for the biologic planting, due to the early May planting, yet there was little weed competition.

The deer would not touch anything with a ten-foot pole, until after a good early January snowfall. In years past I have seen deer go for forage that they had neglected earlier and this would be after a good snow, which puts the bite on them. I have not seen them go bananas like they did for the forage rape. The rape was completely gone in less than two weeks. The next spring the clovers, chicory and plantain grew lush and as thick as thick can be. It was not unusual to see deer there during the daytime.
I still have this same field and it's doing fine. All I do is spray with round up in mid May every other year to lower the weed competition, which gives the legumes a spurt of growth, mow, and fertilize. I expect to do this routine indefinitely without replanting.

I'm convinced there is something to having a perennial and annual seed blend. The annuals become a nurse crop for the perennials, giving it a super boost the following year. The following is the blend that I feel shows much promise. The Mid Michigan

Branch, MMB QDMA will have **Michigan's Ultimate Blend** for sale starting in the spring of 2005 for $30 per bag. Make check payable to Ed Spinazzola 24150 31 Mile Road, Ray, Mi 48096, ph no. 586-784-8090. Shipping and handling cost is $7.00 ($8.00 out of state) first bag + $3.00 ($4.00 out of state) each additional bag. Net proceeds will go to the Mid Michigan Branch QDMA and used for the creation of food plots in public land.

Mid Michigan Branch QDMA

Michigan's Ultimate blend

Ingredients

Annuals	%
Biologic Maximum forage rape	10
Winter canola	5
Dwarf Essex rape	5
Purple Top turnips	2.5
Perennials	
Alsike clover	10
Starfire Red clover	10
Endura Kura clover	15
Jumbo Ladino clover	5
Kopu II White clover	10
Norcen Birdsfoot trefoil	10
Oasis chicory	5
WL 326 GZ alfalfa	12.5
Net weight 6 lbs Total	100.0

Total area coverage 1/2-acre broadcast
2/3- acre drilled
Planting instructions inside

The following is a detailed analysis of the seeds noted above. The seeds in the Michigan's Ultimate Blend were not randomly chosen. I have farmed many years and the perennial seeds in this blend would not normally be chosen for hay fields. Example, the alfalfa hay variety type chosen for farm hay fields would be of the tall upright variety with heavy stalks (diameter of a wooden pencil) and would need to be mowed for regrowth. The WL 326 GZ variety in our blend is a proven and excellent grazing type of alfalfa with multiple small diameter stems (diameter of the lead in that wooden pencil) that grow from the base crown. It can be grazed to the ground all summer long and bounce back with new growth without plant damage, unlike standard alfalfa. The large diameter stem of standard alfalfa is untouched by deer, thus preventing regrowth. All seeds were carefully chosen for their exceptional nutrition, digestibility (the whole plant), palatability (deer love it) and vigor.

The **Biologic Maximum blend** has several different varieties of forage rape (brassica) and is designed for long-lasting forage. It has two varieties that are more palatable to deer early in the season. Brassica has a bitter taste to deer, due to an alkaloid (nitrogen/calcium compound) present in the plant, until a heavy frost. Two things happen; the frost neutralizes the alkaloid and changes the starch into sugar (a common occurrence

in all brassicas and sugar beets). The two varieties gets the deer interested earlier, and it does work, note the selected plants eaten in mid summer. It will grow quite tall, (up to four feet), see photo of planting in 2000. This forage blend along with all other brassicas in the Ultimate Blend stays green under the snow all winter long. The Biologic Maximum blend is also designed for balanced nutrition. With fertilization it will reach 38% protein, It has a mineral balance ratio of five parts Calcium to one part Phosphorous, which is ideal for deer. Do I need to say more? Creator of Biologic seeds, Dr. Grant Woods knows his stuff.

Winter Canola has been discussed in some detail in a previous chapter, "The value of consuming a variety of live plants". I have planted all of the annual Michigan's Ultimate Blend seeds in separate plots with exclosures, for comparison of each. Deer go after the winter canola during the winter with a zest that is indescribable. On January 15th 2001, my wife found a pair of sheds that scored 141 B&C if given a 16-inch inside spread in a one-acre winter canola plot. We all saw this guy the previous summer many times. I found his sheds among several others from the previous year, also in a winter canola plot in the spring of 2000 that scored 121 B&C. A lucky next-door neighbor youth took this guy on the firearm opener of November 15th 2001, see photos. It scored 151 B&C and was aged at five years of age. The Canadian Universities and Agricultural Community developed Canola seed oil to be used as cooking oil. The old standard rape varieties, which canola was hybrid from has a stearic acid content level that is somewhat toxic (tummy ache). Through hybrids the acid dropped to safe levels and many are now cooking with Canola cooking oil. Look in your pantry.

(*Ed, holding the sheds found in early spring of 2000, while his wife Patricia is holding the pair of sheds she found on Janury 15th. 2001*)

(*Lucky hunter Anthony Soave of Sterling Heights, Michigan with the same buck taken at 7:30 AM November 15th 2001*)

Dwarf essex rape is an old plant variety that has been grown for over a thousand years throughout the world as forage for cattle and hogs. Its seeds are crushed for its oil, which is used as an ideal industrial lubricant. It has a rather high content of phosphorous, which is appealing and it is the least expensive of all brassica seeds. I planted an acre of dwarf essex rape in 1972 for pheasants. Pheasants do well with rape. It shades them from predators flying overhead and the sun with its broad leafs, it allows them to run free and wild between the stalks snapping up bugs without a care in the world and it provides forage, for pheasants do eat rape. I asked my wife, Patricia to get in touch with the local elevator to see if they had any seed. When she asked if they had any **rape seed,** they hung up on her. I include this variety due to the high phosphorous content and its low cost. I would not plant this seed variety alone.

Purple Top Turnips is an old standard and will just about grow anywhere. It is very forgiving in soil types and can take a hit from a low pH. I chose this turnip variety due to its forgiving ways and the size that it can grow to. Turnips are included in the blend primarily as a winter carry over forage. It is an-excellent late-fall and winter deer forage. It has a balanced nutrition feature in the bulb, which is high in carbohydrates, along with 11% protein, (perfect winter forage balance) and 30% protein in the leaf. Deer normally leave them alone, then after a good snowfall watch the action. It may look like a war zone, with dirt scattered as the deer paw at the bulbs. Purple top turnips grow 2/3 of the bulb above the soil and are dish shaped at the bottom, which means the whole thing is easily removed from the soil. You may find it difficult to find evidence of any turnips come early spring. If planted near mid to late summer, it will not be fully mature when the weather gets cold enough to stop its growth, (sometimes in November). It is a cold weather crop. I have found, following a mild winter, at the end of March, turnips that were planted in late summer, having tops eaten, (looks like vanilla ice cream cones) with many of the bulbs still edible. I have partaken of this feast more than once on my birthday of April first. Under ideal growing conditions one can grow 20,000 lbs of forage per acre with turnips. Now compare that to a mature forest that averages 50 lbs of forage per acre. In late winter, deer will eat mature turnips that have been frozen and thawed several times, which makes them mushy. It smells like a brewery walking through them during a late winter thaw.

Alsike clover is a native plant and is very hardy. I have seen it flooded under 6 inches of water for two weeks and come back alone and smiling. Well, almost alone, grass, which is indestructible, always appears. It is delicate and nutritious even though it is hardy. You will find this appealing plant growing wild in low lands and in the better soils throughout the Midwest.

Starfire Red clover is an improved variety of medium red clover. Red clover has a short life of two –three years, yet will reseed itself with just a mowing or heavy traffic that knocks down existing plants. It is a vigorous plant that serves well as a nurse crop. It has deeper roots than white or ladino clover and can grow satisfactorily in lighter soils along with taking a mild hit from a drought. I inspect fields quite closely and find much evidence of deer grazing on red clover. It is important that one buys red clover that is not stemy, such as Mammoth red clover, which is designed for cattle. Big is not always better.

Endura Kura clover is a clover that you will hear much from as the years go by. Endura clover is a variety of Kura, which has its origin in southern Russia between the Black and Caspian seas. Under ideal growing conditions, Endura Kura clover can reach 30 inches in height and have leafs as large as plums. It is a true perennial in that it just may live and grow forever. Most other so-called perennials live from three (red clover) to at best 10 years (alfalfa) and loose their vigor as years pass. This is not the story with Kura. Kura will expand its territory up to six feet per year due to its well-developed and deep root system plus rhizomes, (shallow under ground roots that start new plants, like quack grass that can have rhizome roots 100 feet long). In fact Kura is considered an invasive plant

by some. Please invade me Kura! Kura will grow in a drought (no other clover can say this). Although Kura has been known for a good many years it has not been grown extensively here. Perhaps this is due to the fact that it develops few seeds, is susceptibly to seed crop failure and is difficult to get established, which makes it expensive. There is more good news about this legume. It has the nutrition and digestibility of the recognized leading clover in the deer food plot world, (Ladino clover). In fact it has better digestibility than ladino. Ladino is around 70% digestible, while Kura is 83% digestible. Even though Kura is vigorous in growth it does not have thick and indigestible stems and needs other plants in the mix to help it stand up. It will grow in somewhat lighter soil and take a hit from a lower pH, just not grow as vigorous. It is naturally Roundup ready, meaning it can be sprayed with the herbicide, Roundup and keep on growing, while weeds and grass die.

The downside as mentioned is its difficulty to get established. It starts very slow and needs to have very little competition in the beginning. It may take three years to witness its presence, but do not despair it only takes a few plants and over the years it will be, due to its invasive nature be the dominant plant that will not only compete with grass, it just may snuff it out. Kura is compatibly with the other seed types and varieties included in the Michigan's Ultimate Blend. Kura clover evolved in a cold climate and is well suited for the Midwest, even areas well north, like Michigan's Upper Peninsula. We have a planting recommendation that if followed will suppress the competition enough to allow Kura to get established.

Endura Kura clover is an improved variety (more vigorous), and is inoculated with a patented inoculant (super bug inoculant), that makes it even more vigorous than any other Kura combination available.

Jumbo ladino clover is a hybrid that is larger and more vigorous than other ladino clovers. Ladino is considered the leading forage for deer. And I agree with that, except with Endura Kura clover coming onto the scene I'm not sure. Not a problem, deer need a large variety of nutritious, palatably and digestible forage so, lets give it to them. Ladino can take a hit from a temporary wet period. Ladino can perpetuate it self with seeds and stolens. Stolens are the opposite of rhizomes in that they are runners above ground and plant themselves in the soil and start a new plant like strawberries. Ladino can, under good growing conditions, live a long time, some say forever. Ladino prefers the heavier type of soils. Ladino is a hybrid of white clover, with a more vigorous plant growth

Kopu II White clover is a hybrid white clover. Basic white clover is the stuff you have growing in your lawn. Every animal with four legs eats it and it is delicious, palatable and nutritious as the best of them. Kopu II White clover is noted for its high stolen density, persistence, high yield and a long growing season. That makes it a part of the Ultimate Blend.

Norcen Birdsfoot trefoil is forage that I will never do without and l plant it in many areas. Birdsfoot trefoil is not the most digestible, nutritious or palatable forage out there. So, why do I like it? I consider birdsfoot trefoil a safety valve (insurance). When nothing

else is growing you can be sure birdsfoot trefoil is still ticking. This stuff has roots that can reach 7-9 feet deep, which makes it drought resistant. It prefers heavy and wetter areas but will do OK in the drier and lighter soils. It will blossom from early May through early October and as long as it is blossoming it is growing new leafs and stems. This plant will grow all summer long. I have seen deer move completely out of an alfalfa or clover field during a summer drought and literally live in the birdsfoot trefoil area. I have seen deer dig through the snow during a tough winter to get at the trefoil. This is my safety valve. Birdsfoot trefoil can take a lower pH and needs no mowing to keep on growing. Alfalfa, which is considered a drought resistant type of forage needs to be mowed to grow new leafs and stems. It has been known to grow for 30 years or more. The only downside that is mentioned by others (not me) is, that it is considered to be invasive due to its character to expand its territory. Please invade me Birdsfoot trefoil!

I have a problem with certain so-called environmental experts. If forages like Autumn Olive, Kura clover and Birdsfoot trefoil are nutritious and or a life saver and will grow in areas known for poor wildlife nutrition, due to the native forages not doing the job to carry them through their most stressful time period (winter), why not let these exotic foreigners save our butt?

Oasis chicory is considered to be one of the newest and best chicory forages being offered as a long season and nutritious forage. How about 30% protein, how about high digestibility and palatability, how about its ability to pull high levels of the most important minerals out of the soil and how about having an earlier spring spurt of growth for an extended forage growing season available for deer? It also has the ability to grow during the hot and dry summer time due to its deep and extensive root system.

WL 326 GZ alfalfa was covered in some detail above and we all know that deer like alfalfa so we included it in the blend. Is there more about alfalfa that you haven't heard about? Probably yes, and it may interest you. I grew alfalfa for livestock and could expect deer to visit these fields regularly from early spring through the fall. Alfalfa may be eaten by deer during the winter but not so much if there is something else available that they like better. Alfalfa cannot take a heavy frost, unlike other forages including, clover and brassica. It will die and deer do not eat the coarse stems. There will be few leafs available for they will fall to the ground. Alfalfa is susceptible to many problems from insects such as the alfalfa weevil and the ever-present leafhoppers and several funguses. Of course leafhoppers feed pheasants and turkeys so, maybe it's not a total loss. Alfalfa is very demanding in the soil pH (6.8 preferred) and it doesn't like to have its feet wet.

Alfalfa is nutritious and somewhat digestible, while its main attraction as I see it for deer is its palatability (deer love alfalfa) so, let's include it in the blend, especially grazing type alfalfa with its many and smaller stem diameters. Get that pH corrected.

Some may ask, "Why not include a grass seed in the Ultimate Blend"? Well, thanks for the question, but as Dr. James C Kroll, (progressive deer management teacher of thousands) is fond of saying, "Deer are not cows. Cattle eat grass, and deer eat browse (leafs, buds and stems of trees and brush) and forbs". There is a place for grass in a

wildlife seed blend and we include it in a future chapter (the “All Purpose Food Plot”). Here we will use the Ultimate Blend and add a warm and cool season grass to be used primarily for deer cover and bedding area. Grass is nutritious during spring green up, where the protein level can reach 30%. Test this same grass during a hot and dry late July and you will find it coarse, unpalatable and with protein levels less than 10%, which is an unacceptable level for deer when they are lactating and growing body and antlers. The average forage protein level during summer should be 16%. Deer do not eat grass during the summer or if there is something better.

Recommended special brassica blend

The Mid Michigan Branch QDMA has had a brassica mix for sale in the past and will continue to have it available in the future. We have received much feed-back from you and it is positive. Expect deer to be a bit shy at first when first having a forage rape as a choice. In one of my fields it took three years for them to develop a taste, but boy when they did you couldn’t keep them away. This was at the home base where the deer have access to corn, soybeans, wheat, oats, rye, peas and clover. I wouldn’t care to experiment either if I was a deer. The story is very different when there is little competition, where deer have no problem getting introduced to forage rape.

The Mid Michigan Branch QDMA **Special Brassica Blend** is priced for 2005 at $20.00 per bag. Make check payable to Ed Spinazzola 24150 31 Mile Road, Ray, Mi 48096, ph no. 586-784-8090. Shipping and handling is $7.00 ($8.00 out of state) first bag + $3.00 ($4.00 out of state) each additional bag. Net proceeds will go to the Mid Michigan Branch QDMA and used for the creation of food plots in public land.

Mid Michigan Branch QDMA
Special brassica blend

Ingredients

Annuals	%
Biologic Maximum forage rape	30
Winter canola	30
Dwarf Essex rape	30
Purple Top turnips	10%
Net weight 6 lbs total	100.0

Total area coverage ONE acre
Planting instructions inside

Planting instructions for Michigan’s Ultimate blend

First year spraying with following year no-till early spring frost seeding method (recommended)
The previous year, spray with two quarts of Roundup and one quart of ammonium sulfate per acre the following three dates, around the end of May, (wait for the grass and weeds to be a minimum of 12 inches high and the bracken fern leafs unfolded). Note, for the four-gallon type backpack sprayer, use two cups of Roundup and one cup of ammonium sulfate per fill up. Spray

again the end of June or four weeks later. The last spraying is crucial for success and that date is as close to September 15th as possible.

Seeding time is the following early spring while there is still some soil freezing and thawing happening. Due to the Ultimate seed blend including the more sensitive brasssica type seeds, broadcast 6 lbs per ½ acre toward the end of the freezing period. In mid Michigan mid April should be fine. See follow up for fertilization advice.

First year spraying and minimum tillage, with following year mid spring seeding (recommended)
Here the first year we spray the same amount and dates as above, except we add a tillage pass for a more sure seed catch the following spring seeding. At least three weeks after the second spraying of late June, till and till no more than four inches deep and work into the soil the broadcasted lime and fertilizer per soil test recommendations. This tillage operation is toward the end of July allowing amply time for the double-sprayed weeds and their roots to decompose for easy tillage. The third spraying of mid September will allow the new weed seeds brought to the surface due to tillage, time to germinate and emerge, only to be zapped by the mid September spraying leaving your field rather weed and weed seed free for the following early spring seeding.

Seeding time is the following early spring but only after the soil is completely thawed. In Mid Michigan this should be toward the end of April. The seed can be broadcast or drilled, either way follow up with a double cultipacking pass. You fertilized the previous year but it is recommended that you broadcast fertilizer again. See follow up for fertilization advice.

Same year spraying, minimum tillage, along with mid summer seeding (recommended)
Here we will spray also three times and amounts as above, but at a different timing. The first spraying is the same time period of late May. The second spraying is three weeks later. Two weeks after the second spraying, around early July, till and till no more than four inches deep the food plot along with any broadcasted soil test recommended lime and fertilizer.

The third spraying is done prior to but can be the same day as the seeding date. Here we shoot for the seventh of August, (hopefully four weeks after the tillage operation allowing many weed seeds to germinate and emerge only to be zapped).

Seeding time the same year can be very successful if you are blessed with moisture and you followed instructions to the letter. As previously noted broadcast or drill in the seed followed with two cultipacking passes. No harm is done if you add more fertilizer and followed instructions as noted in the (follow up for fertilization) advice.

Follow up for fertilization per acre for no-till frost seeding or minimum tillage right after seeding
Broadcast 200 lbs of 19-19-19
Broadcast 100 lbs of urea 46-0-0

Keep the fun in hunting!

Ed Spin