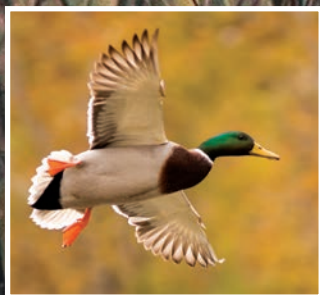


BRIER

RIDGE™

Food Plot Seed

MANAGEMENT GUIDE | EDITION 4



BRIER RIDGE™

Food Plot Seed

About Brier Ridge™

Brier Ridge™ products have been formulated to provide superior performance in establishing, attracting and keeping those trophy bucks, turkeys and upland birds on your property.

Bob H., Central Iowa



“Consistently taking world-class whitetails begins with two qualities: genetics and nutrition. Our neighborhood has the genetics and Brier Ridge provides us with the nutrition. Quality seed with excellent germination and strong vigor gives our food plots that extra edge by providing the necessary nutrients to grow the maximum amount of horn the genetics allow.”

Bob H., Central Iowa



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In The Crosshairs

One of the goals at La Crosse Seed is to provide our customers with relevant and helpful information on a regular basis. Currently, La Crosse Seed sends regular email newsletters that communicate relevant topics. Check out “In The Crosshairs” for timely updates on wildlife and food plots.



Email
info@laxseed.com
to SIGN UP TODAY!



General questions can
also be sent to info@laxseed.com



BRIER RIDGE® Food Plot Seed

Brier Ridge® products have been formulated to provide superior performance in establishing, attracting and keeping those trophy bucks, turkeys and upland birds on your property.



ONLINE
RESOURCES

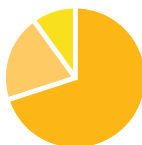
Go to lacroseed.com for planting windows and other useful information.

NAME	BRASSICAS	LEGUMES	GRASSES	WILD FLOWERS	DESCRIPTION	ANNUAL/ PERENNIAL	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)
8847 GT1 FORAGE SOYBEANS					<ul style="list-style-type: none"> Spring/fall planted annual species offering spring/summer/fall food source Performs well on light to heavy soil types in light shade to full sun Glyphosate tolerant, late maturity soybean stays green longer Increased plant height 	ANNUAL	140,000 Seeds/Acre (1" Depth)	140,000 Seed Count
BUCKWHEAT					<ul style="list-style-type: none"> Quick growing broadleaf, grows well in dry/summer conditions Produces leafy above ground biomass for forage and weed suppression Aids in settling soil in seed bed preparation for next crop 	ANNUAL	50 Lbs Per Acre (½" Depth)	50
BULLS-EYE DEER TURNIPS					<ul style="list-style-type: none"> Early fall planted annual turnip blend offering early/late fall food source Performs well on light to heavy soil types in light shade to full sun Turnips will remain green until 10°F Optimally planted 6 - 8 weeks prior to killing frost, sugars will flush vegetative growth after frost, making it an appealing food source Unique blend of turnips provide extensive above & below ground growth 	ANNUAL	2 Lbs Per ¼ Acre (¾" Depth)	2
DEER CANDY SUGAR BEETS					<ul style="list-style-type: none"> Late spring planted annual offering early/late fall food source Performs well on medium to heavy, well drained soils in full sun Provides high energy food source from vegetation & root 	ANNUAL	2 - 3 (Drilled) 8 (Brdcast) (½" Depth)	1
FORAGE COLLARDS					<ul style="list-style-type: none"> Spring/fall planted annual offering summer/late fall food source Thrives in drought & remains green in below 0°F conditions Superior forage quality with high biomass 	ANNUAL	5 (Drilled) 8 (Brdcast) (¾" Depth)	50
FORAGE KALE					<ul style="list-style-type: none"> Early fall planted annual offering early/late fall food source Kale will remain green until 10°F Short stem, high leaf-to-stem ratio 	ANNUAL	3 (Drilled) 5 (Brdcast) (¾" Depth)	50
PLOT SPIKE® FORAGE OATS					<ul style="list-style-type: none"> Spring/fall planted annual species offering spring/summer/fall food source Performs well on light to heavy soil types in light shade to full sun Late maturing forage oat selected for cold tolerance Easy to establish, producing large amounts of forage 	ANNUAL	100 - 120 (1" Depth)	50
TITAN™ FORAGE RAPESEED					<ul style="list-style-type: none"> A new generation rape x kale interspecies cross with high yielding multi-graze, intermediate height rape Excellent regrowth potential suitable for summer, autumn and winter feed Highest animal preference rape cultivar available with aphid and virus tolerance 	ANNUAL	3.5 (Drilled) 4 (Brdcast) (¾" Depth)	50
VIVANT FORAGE BRASSICA					<ul style="list-style-type: none"> Quick establishment & vigorous regrowth, even under close feeding Different than turnips, all the energy of the plant is contained in the leaves Low bolt/high yielding leafy hybrid brassica - high digestability 	ANNUAL	4 (Drilled) 6 (Brdcast) (¾" Depth)	50
WILDLIFE GRAIN SORGHUM (DWARF TYPE)					<ul style="list-style-type: none"> Summer planted annual offering cover for upland game birds, migratory birds & deer Drought tolerant - performs in light to heavy soil types & light shade to full sun Quick to establish, requires 60 - 65°F soil temps for planting/germination Food source for various bird species later in fall/winter 	ANNUAL	6 - 8 (Drilled) 8 - 10 (Brdcast) (1" Depth)	50
WILDLIFE SUNFLOWER (PEREDOVIK TYPE)					<ul style="list-style-type: none"> Spring planted annual offering cover & food source for upland game birds Drought tolerant - performs in light to heavy soil types & light shade to full sun Food source for various bird species later in fall/winter 	ANNUAL	6 - 8 (Drilled) 8 - 10 (Brdcast) (1" Depth)	50

ANNUAL/ PERENNIAL	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	WILD FLOWERS	ANNUAL/ PERENNIAL	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	WILD FLOWERS
ANNUAL HABITAT HIDE-A-WAY							PERENNIAL HABITAT HIDE-A-WAY						
ANNUAL	10*	10					PERENNIAL	9*	9 & 50				

- Summer annual mix planted as bedding/buffer source
- Performs well on light to heavy soil types in light shade to full sun
- Quick to establish, requires 60 - 65°F soil temps for planting/germination, annual alternative to *Perennial Habitat Hide-A-Way*
- Can reach heights up to 8 ft tall

60% Summer Select® Forage Sorghum
30% Wildlife Grain Sorghum
10% Wildlife Sunflowers



*Seed at 1" Depth

- Spring/fall planted native grass perennial mix offering year-round bedding/buffer source
- Performs well on light to heavy soil types in light shade to full sun
- Maintenance needed during slow establishment period; alternative to *Annual Habitat Hide-A-Way*
- Will reach heights up to 8 ft tall

34% Switchgrass
33% Indiangrass
33% Big Bluestem

See Natives First® Guide for establishment guidelines



*Seed at ¼" Depth

Food Plot Mixes

ANNUAL/ PERENNIAL	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	WILD FLOWERS
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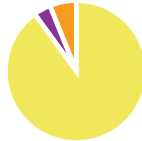
AUTUMN ENERGY

ANNUAL	40 - 50*	25				
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- Early fall planted annual species offering early/late fall food source
- Performs well on light to heavy soil types in light shade to full sun
- Portion remains green until air temps reach 10 - 15°F
- Optimally planted 6 - 8 weeks prior to killing frost

- 90% Plotspike® Oats
- 6% Tillage Radish®
- 4% Purple Top Turnips

*Seed at ¼" Depth



ANNUAL/ PERENNIAL	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	WILD FLOWERS
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BUCK'S BANQUET

ANNUAL/ PERENNIAL	10*	10 & 5				
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- Early fall planted annual & perennial species offering early/late fall food source
- For medium to heavy soil types in light shade to full sun
- Clover/chicory remain perennial after brassicas winterkill
- Portion remains green until air temps reach 10 - 15°F
- Optimally planted 6 - 8 weeks prior to killing frost

- 20% Orion XL Ladino Clover
- 20% Rapeseed
- 15% Purple Top Turnips
- 15% Tillage Radish®
- 10% Intermediate White Clover
- 10% Radium XL Alsike Clover
- 10% Chicory

*Seed at ¼" Depth



DEER COUNTRY POINT BUILDER PLUS

ANNUAL/ PERENNIAL	15* (Drilled)	20 - 25 (Brdcast)	25				
----------------------	---------------	-------------------	----	--	--	--	--

- Spring/fall planted perennial mix offering year-round food source
- Performs well on medium to heavy soil types in light shade to full sun
- Includes high sugar perennial grass & high energy legumes

- 25% Berseem Clover
- 20% Orion XL Ladino Clover
- 20% High Sugar Perennial Ryegrass
- 15% Rapeseed
- 10% Intermediate White Clover
- 10% Chicory

*Seed at ¼" Depth



DEER COUNTRY FIELD MIX

ANNUAL/ PERENNIAL	10* (Drilled)	15 - 20 (Brdcast)	25				
----------------------	---------------	-------------------	----	--	--	--	--

- Spring/fall planted perennial mix offering year-round food source
- Performs well on light to heavy soil types in light shade to full sun
- Includes high energy legumes that will thrive in various geographical locations

- 25% FF Pro Alfalfa
- 20% High Sugar Perennial Ryegrass
- 15% Orion XL Ladino Clover
- 10% Radium XL Alsike Clover
- 10% Red Carpet XL Red Clover
- 10% Intermediate White Clover
- 10% Berseem Clover

*Seed at ¼" Depth



DEER COUNTRY TRAIL MIX

ANNUAL/ PERENNIAL	10* (Drilled)	15 - 20 (Brdcast)	25				
----------------------	---------------	-------------------	----	--	--	--	--

- Spring/fall planted perennial mix offering year-round food source
- Performs well on light to heavy soil types in moderate shade to full sun
- Very quick & easy establishment
- Includes shade tolerant species

- 20% High Sugar Perennial Ryegrass
- 20% Berseem Clover
- 20% Intermediate White Clover
- 15% Crimson Clover
- 15% Creeping Red Fescue
- 10% Radium XL Alsike Clover

*Seed at ¼" Depth



HORN HONEY

PERENNIAL	10*	10 & 5				
-----------	-----	--------	--	--	--	--

- Spring/fall planted perennial mix offering year-round food source
- Performs well on medium to heavy soil types in light shade to full sun
- Includes high energy legumes that will thrive in various geographical locations
- Chicory will thrive during summer months

- 25% Orion XL Ladino Clover
- 25% Red Carpet XL Red Clover
- 25% Intermediate White Clover
- 15% Radium XL Alsike Clover
- 10% Chicory

*Seed at ¼" Depth



RUT N READY

ANNUAL	8*	8 & 4				
--------	----	-------	--	--	--	--

- Early fall planted annuals offer early/late fall food source
- For light to heavy soil types in light shade to full sun
- Brassicas remain green until air temps reach 10 - 15°F
- Optimally planted 6 - 8 weeks prior to killing frost, sugars flush vegetative growth after frost for appealing food source
- Brassicas attract deer early fall & after killing frost

- 30% Tillage Radish®
- 20% Rapeseed
- 20% Purple Top Turnips
- 10% Forage Kale
- 10% Vivant Brassica
- 10% Forage Collards

*Seed at ¼" Depth



SUCRASEED® SWEET SPOT

ANNUAL/ PERENNIAL	10* Lbs Per ½ Acre	10				
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- Spring/fall planted perennial mix offering year-round food source
- Performs well on medium to heavy soil types in light shade to full sun
- Quick to establish & able to withstand heavy grazing
- Includes grasses with higher sugar content & higher energy legumes

- 55% Aber HSG Perennial Ryegrass
- 10% Medium Red Clover
- 10% Frosty Berseem Clover
- 10% Fixation Balansa Clover
- 7% Ladino White Clover
- 5% Chicory
- 3% Purple Top Turnips

*Seed at ¼" Depth



Soil First® Mixes

Cover crops are being used across the country for many reasons. Besides soil and water quality benefits, integrating summer, fall and winter cover crops can supply much needed forage for hay, silage and pasture through fall and spring, **and many of our Soil First® cover crop mixes also make excellent food plots!**



SOIL FIRST® 101 COVER STARTER



Overwintering Annual

- Fall planted mix offering fall/early spring food source due to over wintering
- Meets objectives of nutrient scavenging, erosion control, weed suppression, and soil building
- Easy to establish providing large amounts of forage, dual purpose cover crop/food source



SEEDING (LBS/ACRE)
Forage/Cover: 40 - 50
(½" Depth)

SOIL FIRST® 102 COVER STARTER +



Overwintering Annual

- Fall planted mix offering fall/early spring cover and food source due to over wintering
- Similar to SF 102 but includes a nitrogen fixing legume crimson clover
- Easy to establish provided large amounts of forage, dual purpose covercrop/food source



SEEDING (LBS/ACRE)
Forage/Cover: 40 - 50
(½" Depth)

SOIL FIRST® 125 N-HANCER



Winter Terminating Annual (Varies Geographically)

- Spring/Fall planted mix designed as a nitrogen booster in front of grass species food plot
- Mix produces large amounts of biomass which can survive heavy grazing pressure
- Easy to establish, nutrient cycling, dual purpose cover crop/food source



SEEDING (LBS/ACRE)
Forage/Cover: 40 - 50
(¼" Depth)

SOIL FIRST® 140 MULTI-PURPOSE



Overwintering Annual

- Fall planted mix formulated for maximizing food source through fall/early spring
- Mix formulated for nitrogen fixation and nutrient sequestration
- Easy to establish, nutrient cycling, dual purpose cover crop/food source



SEEDING (LBS/ACRE)
Forage/Cover: 40 - 50
(¼" Depth)

SOIL FIRST® 142 CLASSIC



Winter Terminating Annual (Varies Geographically)

- Spring/Fall planted mix formulated for nitrogen fixation/sequestration
- Versatile mix can accompany many other small grain species
- Easy to establish, nitrogen producer, nutrient cycling, dual purpose cover crop/food source



SEEDING (LBS/ACRE)
Forage/Cover: 15
(¼" Depth)

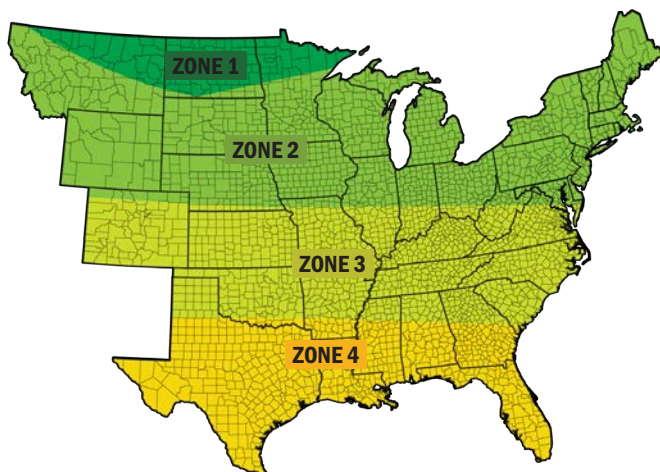
SOIL BENEFITS OF COVER CROPS

Cover crops and green manures stimulate microbial activity because they supply food (carbon) for the microorganisms to feed on. Microorganisms in our soils use carbon to build organic matter and in turn store nutrients. Carbon reserves allow nutrients to be scavenged, supplying food for the soil ecosystem, instead of robbing the microbes' reserves left from the organic matter. Aggregate stability leads to increased soil structure, which ultimately leads to better nutrient cycling, and better movement of water and oxygen. Cover crops and green manures prevent captured nutrients from being lost through soil erosion, leaching and volatilization.

Create a Nitrogen Source	Reduce Soil Erosion	Sequester/Cycle Nutrients
Support Pest Control	Weed Control	Break Soil Compaction
Generate Extra Forage	Wildlife Shelter	Build Organic Material
Increase Soil Structure	Financial Value	Conserve Soil Moisture



CODE	PLANTING ZONE DATES	ZONE 1	ZONE 2	ZONE 3	ZONE 4
BW	Buckwheat	May 15 - June 10 Aug 1 - Sept 10	May 1 - Jun 30, Jul 15 - Sep 1	Apr 15 - May 31, Sep 15 - Oct 15	Mar 15 - Apr 30, Sep 15 - Oct 31
BET	Bulls-Eye Deer Turnips	Jul 1 - Aug 1	Jul 15 - Sep 1	Aug 15 - Oct 15	Sep 1 - Oct 31
DC	Deer Candy Sugar Beets	May 15 - Jun 30	May 1 - Jun 30, Jul 15 - Sep 1	Aug 1 - Oct 15	Sep 1 - Oct 31
FC	Forage Collards	Jul 15 - Aug 15	Aug 1 - Sep 15	Aug 15 - Oct 15	Sep 1 - Oct 31
FK	Forage Kale	Jul 15 - Aug 15	Aug 1 - Sep 15	Aug 15 - Oct 15	Sep 1 - Oct 31
GT1	8847 Gt1 Forage Soybeans	Jun 1 - Jun 30	May 15 - Jun 30	Apr 1 - Jun 30	Apr 1 - Jul 31
PS	Plotspike® Forage Oats	Aug 1 - Aug 20	Aug 1 - Aug 30	Aug 1 - Sep 31	Oct 1 - Nov 30
TFR	Titan™ Forage Rapeseed	Jul 15 - Aug 15	Aug 1 - Sep 15	Aug 15 - Oct 15	Sep 1 - Oct 31
VFB	Vivant Forage Brassica	Jul 15 - Aug 15	Aug 1 - Sep 15	Aug 15 - Oct 15	Sep 1 - Oct 31
WGS	Wildlife Grain Sorghum	VARIES, SOIL TEMP @ 60 - 65°			
WS	Wildlife Sunflower	Jun 1 - Jun 30	May 15 - Jun 30	Apr 1 - Jun 30	Apr 1 - Jul 31
AE	Autumn Energy	Jul - Aug 15	Aug 1 - Sep 1	Aug 15 - Oct 15	Sep 1 - Oct 31
BB	Buck's Banquet	Jul - Aug 15	Aug 1 - Sep 1	Aug 15 - Oct 15	Sep 1 - Oct 31
DPB	Deer Country Point Builder Plus	Jul 15 - Aug 15	May 1 - Jun 30, Jul 15 - Sep 1	Apr 15 - May 31, Sep 1 - Oct 15	Mar 15 - Apr 30, Sep 15 - Oct 31
DCF	Deer Country Field	May 15 - June 10 Aug 1 - Sept 10	May 1 - Jun 30, Jul 15 - Sep 1	Apr 15 - May 31, Sep 15 - Oct 15	Mar 15 - Apr 30, Sep 15 - Oct 31
DCT	Deer Country Trail	May 15 - June 10 Aug 1 - Sept 10	May 1 - Jun 30, Jul 15 - Sep 1	Apr 15 - May 31, Sep 15 - Oct 15	Mar 15 - Apr 30, Sep 15 - Oct 31
AHH	Annual Habitat Hide-A-Way	VARIES, SOIL TEMP @ 60 - 65°			
PHH	Perennial Habitat Hide-A-Way	VARIES, SEE NATIVES GUIDE			
HH	Horn Honey	May 15 - June 10 Aug 1 - Sept 10	May 1 - Jun 30, Jul 15 - Sep 1	Aug 15 - Oct 15	Sep 1 - Oct 31
RR	Rut N Ready Wildlife	Jul 15 - Aug 15	Aug 1 - Sep 15	Aug 15 - Oct 15	Sep 1 - Oct 31
SS	Sucraseed™ Sweet Spot	July 15 - Aug 15	July 15 - Sep 1	Aug 15 - Oct 15	Sep 1 - Oct 31
SF 101	SF 101 Cover Starter	No Later Than Aug 15	No Later Than Sep 5	No Later Than Sep 15	No Later Than Oct 1
SF 102	SF 102 Cover Starter +	No Later Than Aug 15	No Later Than Sep 5	No Later Than Sep 15	No Later Than Oct 1
SF 125	SF 125 N-Hancer	May 15 - June 10 Aug 1 - Sept 10	May 1 - Jun 30, Jul 15 - Sep 1	Apr 15 - May 31, Sep 15 - Oct 15	Mar 15 - Apr 30, Sep 15 - Oct 31
SF 140	SF 140 Multi-Purpose	No Later Than Aug 10	No Later Than Sep 1	No Later Than Sep 10	No Later Than Sep 20
SF 142	SF 142 Classic	No Later Than Aug 1	No Later Than Sep 1	No Later Than Sep 20	No Later Than Oct 1





WHAT MAKES AN IDEAL FOOD PLOT?

Let's start with the size of the food plot.

OPTIONS FOR CALCULATING FOOD PLOT SIZE

ACRES = $\frac{\text{LENGTH (L)} \times \text{WIDTH (W)}}{43,560}$

EXAMPLE:

W = 300 FEET
 L = 1,742 FEET

$\frac{1,742 \times 300}{43,560} = 11.997 \text{ ACRES}$

ACRES = $\frac{1}{2} \left[\frac{\text{LENGTH (L)} \times \text{WIDTH (W)}}{43,560} \right]$

EXAMPLE:

W = 300 FEET
 L = 1,742 FEET

$\frac{1}{2} \left(\frac{1,742 \times 300}{43,560} \right) = 5.99 \text{ ACRES}$

ACRES = $\frac{\pi \times R^2}{43,560}$ $\pi = 3.14$
R = RADIUS

EXAMPLE: **R = 340 FEET**

$\frac{3.14 \times 340^2}{43,560} = 8.33 \text{ ACRES}$

Rule of Thumb:
 Allow 1/4 to 1/2 acre in multiple areas.

Numerous small plots are generally more productive for hunters, rather than one or two large plots. Deer, especially mature bucks, are more likely to use food plots during daylight hours if plots are smaller and surrounded by thick cover. Plots should

receive four to five hours of sunlight per day. If small plots are receiving too much grazing pressure, then planting a large "feeding" plot in the center of your property can take stress off smaller plots. Generally speaking, planting 2-5% of your property in food plots is ideal, with about 2/3 of those plots being perennial forages.

- As you plan the food plot, take into consideration the landform and the type of soil.
- It should be free, open and without obstacles such as large rocks, low hanging branches and sudden drop-offs.
 - The soil should be able to supply high quality feed. If it isn't already in the right condition, you'll have to treat it before planting.
 - Once planted, the ground cover should provide a soft cushion to prevent stress on limbs and it should be attractive.

If managed wisely, a food plot will be both an economical source of high-quality feed for deer, as well as cover for other wildlife.

If managed poorly or ignored, a food plot can soon become nothing more than an overgrazed weed patch that not only has little nutritional value, but may even contribute to health problems.



SOIL FERTILITY

Soil is the foundation of a healthy food plot, so it's essential that you know what condition your foundation is in before planting. More than likely, the land you're turning into a food plot was once used for other purposes.

Soil that is deficient in the proper nutrients, or out of pH balance, cannot produce forage that has high nutritional value. The only reliable way to know what the soil needs -and doesn't need -is to test, don't guess.

The best time to soil test is in the fall and early spring, before previous residue starts to breakdown. If fertilization has already taken place, you should wait at least 12 weeks before testing, in order to get an accurate reading.

When taking samples, use clean tools. Pesticide or fertilizer

residues on the tools, or in the container, will create misleading results. Take six to eight cores from each food plot where the soil type and topography are fairly uniform and the food plot has been uniformly managed, with regard to the crop grown or fertilizer applied. Limit the maximum area of each sample to no more than 2 acres. Collect a sample by making a random zig-zag pattern over the entire field. Mix the cores thoroughly and then submit about a pint of soil to the lab.

Rule of Thumb:

Soil test every two to three years. Take soil from the top 3 to 5 inches.



BENEFITS OF FERTILIZING

Fertilization enables the plant to develop denser and deeper roots which allow it to:

- Absorb more nutrients and moisture.
- Develop denser foliage to increase the absorption of sunlight.
- Increases the plant's ground cover, which inhibits the growth of weeds.

THE FOOD PLOT'S BUILDING BLOCKS: N.P.K.



NITROGEN (N) - the first number on a bag of fertilizer

Nitrogen is critical for the maximum growth of cool season grasses. An adequate supply of nitrogen is associated with vigorous vegetative growth and a plant's dark green color. Nitrogen is very mobile in the soil. It moves from the soil into the plant as part of the growth process and seeping water can leach it out of the soil over time. Therefore, it must be continually replenished.

The preferred sources of nitrogen are Ammonium Sulfate (21-0-0-24) or Urea (46-0-0).

Ammonium Sulfate aides the new plants without burning them if put on at too high of a rate or when under higher temperatures. Urea is best used in the spring, when temperatures are lower. If it's applied when temperatures are hotter, high levels of volatilization may occur. (http://ohioline.osu.edu/b760/b760_3.html)

Heavily grazed food plots with high yielding forages require approximately 100-150 pounds of actual Nitrogen/acre/year.

Rule of Thumb:

Three applications of Nitrogen at 50 lbs./acre/year each.

- Summer, if rains are present to promote growth.
- Spring and fall.



PHOSPHORUS (P) - the second number on a bag of fertilizer

Plants require phosphorus for steady, strong growth. As growth occurs, phosphorus is used to efficiently use sugars and starches and to maximize photosynthesis in the young roots, stems and leaves. When adequate phosphorus is in the soil, you will generally see rapid growth, earlier maturity and frequently the quality of vegetative growth is improved. ([http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex920?opendocument](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex920?opendocument))

Rule of Thumb:

40-60 lbs./acre/year or based on the soil test.

- Phosphorous is directly related to milk production of the doe and antler growth of the buck.



POTASSIUM (K) - the third number on a bag of fertilizer

Potassium is required for overall strong plant growth, increased disease resistance and increased winter hardiness.

Rule of Thumb:

250-300 lbs./acre/year or based on the soil test.

WHAT IF SOIL PH IS NOT IDEAL?

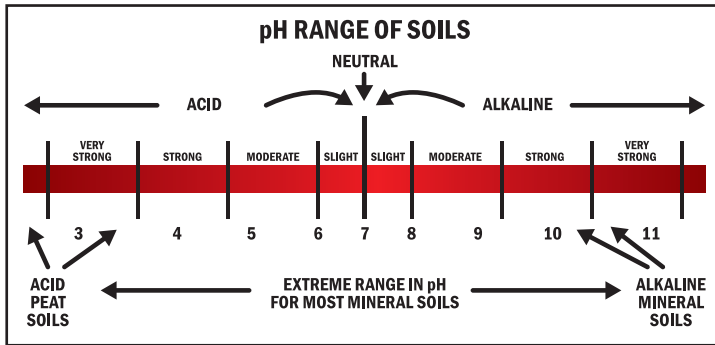
For the food plot to reach its full nutritional potential, the soil's pH range should be between 6.0 to 7.0. Legumes require a higher pH than the grasses, due in part to the rhizobia activity in the root nodules. The rhizobia have a higher pH requirement for nitrogen fixation than the plant has for growth. Within grasses, the warm-season grasses are more tolerant of low pH values than the cool-season grasses. But, there are important reasons to maintain a pH of 6.0 to 7.0, even if you are planting a warm-season grass.

- Most nutrients that a plant needs are available within the 6.0 to 7.0 pH range.
- Some problem weed species are more competitive at lower pH values.
- Over-seeded winter annuals, especially clovers, require a higher pH for optimum growth and production.

- Nitrogen fertilizer is a major acidifying force in food plots. Therefore, high nitrogen rates can rapidly decrease the soil pH. (<http://hubcap.clemson.edu/blppt/pasture/grazing.html>)

BALANCING THE PH

Fall is the best time to boost pH levels by applying lime because it allows the soil to neutralize, which takes from four to six months.



WEED CONTROL

The presence of weeds and brush in a food plot often indicates poor food plot management, typically either overgrazing or inadequate fertilization. Because they compete with desirable food plot species for water, sunlight and nutrients, their presence reduces both the longevity and nutritional value of a food plot stand.

The best weed control is achieved by maintaining a dense healthy stand of grasses and legumes through proper fertilization, cutting management and higher seed rates.

Once broadleaf weeds take root in a food plot, chemicals such as 2,4-D¹, Banvel® or Crossbow® may be used to take control. Keep the following in mind:

- Chemicals are non-selective – they kill beneficial broadleaf plants, like legumes and clover, in addition to noxious plants such as multi-flora rose and brambles.
- To control broadleaf weeds in a legume food plot, you must control them the year before and plant the legumes the following year. Mowing is the best alternative.
- For the chemical to be effective, weeds must be actively growing when it's applied. Follow the label.
- Round-Up® can be used to remove difficult perennials; however, Round-Up® will take out beneficial plants at the same time and will require reseeding of those areas.

- Use pesticides as spot treatments only. Do not broadcast them throughout the food plot.
- It's best to apply herbicides in early spring.

CAUTION:

Use pesticides only when necessary, and at the recommended dosages and timing, to keep residues within the limit the set by the law. Before using any pesticide, read the label and follow all directions and safety precautions listed.

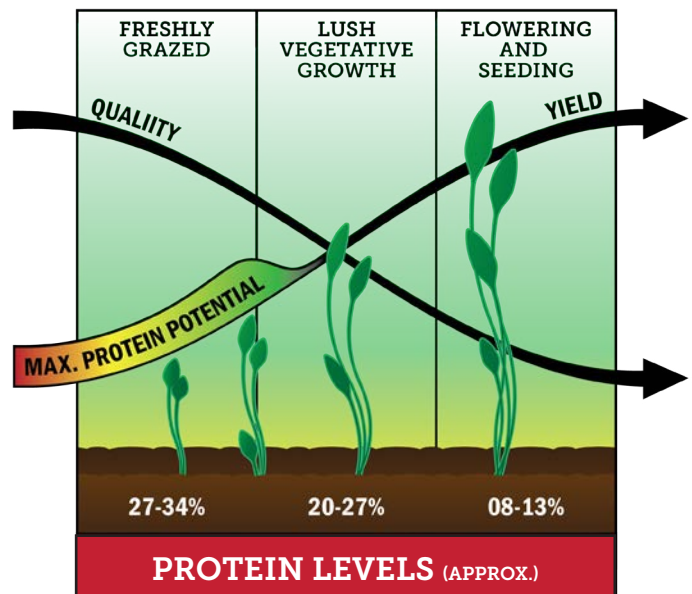
¹2,4-D is an option for broadleaf weed control in legume- and grass-based plots. It does not kill all broadleaf weeds.

BEST MANAGEMENT PRACTICES

MOWING

Mowing has two primary advantages. First, it reduces weeds and second, it improves the food plot's productivity.

Mowing before the weed's seedheads are produced, prevents weeds from spreading. Mowing also keeps the plants shorter, which deer prefer because it has less fiber, is higher in protein and more nutrients reside in the younger leaves and stems.



RENOVATION

Ideally it would be best to plow the food plot and grow an annual crop, such as corn or oats, for one year and seed the food plot the following year. Growing an annual crop helps remove both broadleaf and grass weeds that have

strong root systems, destroys mole runs, breaks down the compacted sod and allows the preparation of a good seedbed.

An alternative method is to till the food plot in late fall and leave tilled over winter. Then work a new seedbed in the spring by rotovation or plowing, followed by dragging into a smooth, firm seedbed. It is important that all past plants be buried so they don't re-grow.

Seeding in early spring offers the greatest opportunity for successful renovation. Later plantings are likely to suffer during summer droughts because they don't have the root structure to survive. Also, bacterial nodulation of legumes slows when plants are under moisture stress and weeds become more competitive. If you must plant during the summer, make sure to irrigate sufficiently in order to establish plant growth.

Planting in early fall can also be successful, depending on moisture levels and temperatures. It is important the seedling is established 45-60 days before temperatures drop to freezing, so plants can get an adequate root system established. (<http://clallam.wsu.edu/waterquality/pasture.html>)

Seed needs to have good soil contact. This can best be accomplished by using a drill to plant. Broadcast seeding is not recommended because it does not ensure soil contact nor seed placement. If broadcast seeding is the only option, follow with a drag or cultipacker to push seed into the top 1/8 to 1/4 inch of the soil.

FROST SEEDING

Frost /dormant seeding legumes and grasses is an efficient way to improve food plot yields or change the forage composition within your food plot. This is done in late fall after soil temperatures are below 40 degrees Fahrenheit or early spring before soils warm above 40 degrees Fahrenheit. This allows the new seedlings to establish without heavy competition.

Frost seeding has several benefits over traditional forms for planting:

- Ability to establish forage in an undisturbed sod bed.
- Reduced need for labor and energy.
- Minimum equipment investment.
- Shortened "non-grazing" period.
- Maintains stand productivity for both grasses and legumes.

As with other planting methods, soil contact is essential for success. This can be achieved by mowing closely in the fall or winter, down to 2 inches, in order to open up stands and expose soil. Sod-type grasses (bluegrass, brome) are the most difficult to frost seed, especially where a thick layer of thatch covers the soil surface. In these instances, spraying out the bluegrass or brome grass and starting over is the best solution. Preferred species are festulolium, ryegrass, orchardgrass, Ladino clover and red clover.

In the spring, it's important to reduce plant competition so the new seedlings can develop adequate root systems. By mowing or animal grazing down to 2 inches in the fall, spring regrowth from established plants is slowed down, allowing the seedlings to take hold. As the new seedlings take hold, follow the prescribed routine to ensure strong root growth and thicken up the food plot more quickly:

- Allow food plot to grow 6-8 inches.
- Mow it.
- Allow it to re-grow to 6-8 inches.
- Mow it again.
- After the second mowing, allow the food plot to re-grow. Then, either allow it to grow for cover or continue mowing cycle.

WATER

Like other field crops, food plots benefit from adequate water throughout the growing season. It provides for faster recovery, maintains productivity and lengthens the life of the food plot.

The amount of water required each week depends on the type of soil and weather conditions. Different soils hold water better than others. A soil test will indicate the amount of watering that is required.

REFERENCES:

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