

# **High Energy Forages & Soil Building Cover Crops**

# 2012 Summer Newsletter July 2012

# A Note From Tim

#### **Tim Fritz, President/Agronomist**

We at King's AgriSeeds want to thank you for allowing us to serve you. For those who have recently discovered King's, we offer you a full line of agricultural seeds, along with service and knowledge in utilizing the most appropriate seed genetics for you. Our focus on 'high energy forages and soil building cover crops' sets us apart from many seed suppliers. Our technical support staff is knowledgeable and dedicated to meeting your needs. We are happy to help you build a cropping system that is productive and balanced.

### A special note to Dairy and Livestock Producers:

With the current cost of purchasing forages, grains and concentrates, now is the time to maximize your land's forage productivity by allowing a higher percentage of your livestock's diet to be quality forages. As feed and land costs continue to rise, growing and feeding forage is a matter of economic survival. Now is the time to get the most out of your land by being aggressive with your forage cropping system!

# **Be Aware of Herbicide Rotation Restrictions – Think Ahead**

#### Dave Wilson, Research Agronomist

When planning crop rotations, consider how the weeds will be controlled in each crop and if there is any risk of herbicide carry-over that will affect the next crop in rotation. Read herbicide labels, keep records and look for listed rotational restrictions for the crop that you plan to plant next in your rotation.

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Residual herbicides are often applied to crops to provide seasonlong weed control. The length of time a herbicide remains active in the soil is called 'soil residual life' or 'soil persistence'. Herbicidal activity is beneficial only for the time it is needed; longer herbicide activity can cause injury to subsequent crops. 'Herbicide carryover' is a term used to describe the presence of a herbicide in soil after its weed control mission has been accomplished.

In a diverse crop rotation, where a variety of herbicides are being used, record keeping becomes even more important. Many of today's herbicides have more than season-long residual effect.

#### Keeping a detailed notebook of the herbicides applied and at what

rates will help you to identify any establishment problems in the following crop, should they arise. Also see the herbicide label.

<u>The key is to think ahead</u>. Become familiar with the herbicides you are using and be aware of the rotational restrictions.

If you use a custom herbicide applicator service on your farm, make sure that you get complete records of the herbicide mixes and rates that are used. It is important to have a conversation ahead of spraying time to let the custom applicator know what your planned rotation is, so they can also consider alternative herbicides due to rotation restrictions.

The *Penn State Agronomy Guide* is a great source of information about herbicide rotation restrictions. These guides can be purchased from Penn State by calling **(814) 865-6713**.

Cereal rye, wheat, barley and oats are four common crops that are often listed on a product label. Use the Penn State Agronomy Guide **Tables 2.2–17 and 2.4–15** or the herbicide label to determine which products have less than or equal to 4-month rotational restrictions for cover crops like rye, field pea, clover, oats and sorghum/sudan.

In the long run there are numerous benefits obtained by using a crop rotation, including the ability to grow more forage on our farms and use cover crops in our rotations. However, success with rotation is obtained through good management.

# **Working With Your Local Dealer**

The most valuable asset that King's offers is our dealer network. During 2011, our dealer network consisted of 150+ dealers ranging from full time farmers who use and sell our seed to larger ag-service operations with multiple sales/support personnel. No matter the size of the dealership, your King's dealer provides you localized support and knowledge about appropriate cropping systems for your area. We value their ideas and opinions, and we constantly emphasize the importance of you (the producer) developing a positive working relationship with your King's dealer. If you are not aware of a King's dealer in your area, please contact our home office @ (717) 687-6224 so that our staff can forward you to the correct dealer.



# **New Tote System**

In response to your requests, King's is installing a new bagging system capable of filling poly totes. This means that our mixes, cover crops/winter forages and other seeds will be offered in tote quantities as well as smaller bags (50lb, 25lb, etc). Purchasing seed in totes allows you the convenience of loading seed directly into a larger hopper rather than handling smaller bags. Contact your local dealer to ask about ordering totes.

# **Maintaining Your Stored Forage Quality**

As the importance of growing more forage becomes more apparent, so does the need to maintain forage quality from harvest to feed out. King's offers a few great ways to help you to ensure that the value of your crops does not decrease with storage.

# **Agmaster Crop Specific Inoculants**

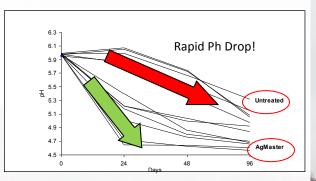
Agmaster inoculants are crop specific inoculants. The strains of bacteria present have been selected for fast fermentation applied to on the labeled crop. While the crop specific inoculants are available in liquid form, we do carry a dry granular form that can generally be used for all crop types. For operations struggling with slow

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feed-out or heating after the fermented crop is exposed to air, Agmaster Lb (Lactobacillus buchneri) inoculant is available.

### Agmaster Haylage

Commercial haylage inoculants were evaluated at Kansas State University under the direction of Dr. Keith Bolsen. Fourteen commercial silage inoculants were evaluated for their effect on haylage fermentation. All inoculants increased the rate and efficiency of the fermentation. In general, the untreated control silage fermented much slower. The graph right shows the rapid fermentation of Agmaster treated haylage versus the slower fermentation of untreated haylage.



# **Agmaster Corn Silage**

This study was performed to determine the effect on feeding cattle Agmaster treated versus untreated corn silage

	Untreated	Agmaster
Gain (lb/94 days)	168	172
D.M.I. (lb/7 days)	471	480
A.D.G. (lb/day)	1.79	1.83
Feed/Pound of	8.45	8.38
Gain		

stored in bunker silos. A total of 40 heifers (500 to 700 lbs), 16 Holsteins and 24 cross bred Simmentals were allocated to 10 pens (4 per pen, 2 Holstein groups and 3 crossbred Simmental groups) and fed a diet consisting of either 90% treated or untreated corn silage. See the difference in weight gain of animals fed treated versus untreated.

# Agmaster Lb

The key benefit of using Agmaster Lb is the stability in forage that it creates. Having forage that does not heat during slower feedout can be quite valuable. The Lb bacteria makes a significant difference in the forage quality by increasing the stability over time.

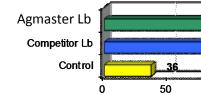
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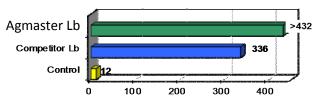
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#### Corn Silage Aerobic Stability - Bunk Life: Hours to spoilage







# Dry Granular

Agmaster dry granular offers you the convenience of utilizing a dry granular product. The strains of bacteria included are effective at reducing the pH and stabilizing a wide range of crops. This product comes in a 50 pound bag that treats 100 tons.

# Culbac Dry Hay Preservative—Bale Hay Sooner!

Culbac hay preservative offers a great way for producers to increase the value of dry baled forage. Baling at higher moisture reduces leaf shatter and allows you to harvest greener, more palatable forage. Additionally, **applying** 



The picture to the left shows hay that was treated with Culbac vs. hay that was not treated. You can see the greener, brighter looking hay on the left, and the coarser hay on the right.

**Culbac hay during** mowing begins preserving forage immediately and offers a measure of windrow protection against unexpected rain showers.



# **Perennial Forages**

# **Grass/Legume Mixtures**

Mixed stands of legumes and grasses offer more agronomic stability and in general higher quality livestock forage from a nutritional point of view. Legumes provide nitrogen to the soil and protein to the livestock, while improved grasses increase yield and add energy, primarily through fiber digestibility. We have worked hard to bring you mixtures that work in both the field and in the barn.

# **Performance Max**

Components:	Best Uses:	Comments:
Alfalfa Endophyte Free Tall Fescue Highland Hay	Haylage Baleage Dry Hay	The alfalfa adds productivity during drought, protein, and high NSC, while the fescue adds consistent high fiber digestibility, yields and traffic tolerance.
Components:	Best Uses:	Comments:
Kingfisher Alfalfas Premium Tall Fescue Late Heading Orchardgrass	Haylage Baleage Dry Hay	This mix works great for the mid-Atlantic region, and will also perform well in the northern climates. It handles heat and drought very well.
Haymaster		
Components:	Best Uses:	Comments:
Alfalfa Late Heading Orchardgrass Hakari Alaska Brome Barfleo Timothy	Dry Hay Baleage Haylage Managed Grazing	This easy to dry grass alfalfa mix makes a soft palatable hay. Ideal for auction hay, horses, calves and other livestock. Best on well drained soils.
Crucarafarat		
Greenfast Components:	Best Uses:	Comments:
Festulolium	Haylage	
Perennial Ryegrass	Baleage	Expect three years of strong performance with this fast starting mix that is very high yielding and high
Orchardgrass	Managed Grazing	quality. Best on moist fertile soil.
Meadow Fescue		
Red Clover		

Ladino Clover

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# **Lowland Hay**

Components:	Best Uses:	Comments:
Endophyte Free Tall Fescue	Haylage	A later heading mixture that tolerates wetter soils
Barfleo Timothy	Baleage	and has a wide harvest window. Great yield and
Freedom Red Clover	Dry Hay	traffic tolerance.

# **Grass Mixtures** (Seed straight or complement legume(s) of your choice)

# **Grass** Pro

Components:	Best Uses:	Comments:
Endophyte Free Tall Fescue	Haylage	This is an easy to dry mix that is great for stored
Late Heading Orchardgrass	Baleage	forage. It works well on multiple soil types, so its
Barfleo Timothy	Dry Hay	great for fields with variability.

### Tri-Star

Components:	Best Uses:	Comments:
Endophyte Free Tall Fescue Festulolium Orchardgrass	Haylage Baleage	Great mix for seeding into existing alfalfa and/or clover stands where more yield and digestibility is desired. Also a great complement for new legume seedings. Festulolium is a fast starter.

#### Milkway

Components:	Best Uses:	Comments:
Soft Leaf Tall Fescue Meadow Fescue	Haylage Baleage Grazing Dry Hay	Designed to be seeded alone for high energy haylage. Great for wastewater and manure applica- tion. Can also be seeded with legumes such as alfal- fa and red clover.

# **Heavy Traffic Areas**

# **Equinemaster Paddock**

Best Uses:	Comments:
Exercise Lots Waterways Bank Stabilization Grazing	Our top end exercise lot mix for a finer looking paddock. Tolerates moist to drier soils.
Dest	Comments:
	Exercise Lots Waterways Bank Stabilization

<u>Components:</u>	Best Uses:	Comments:
Endophyte Free Tall Fescue	Exercise Lots	Primarily a conservation mix, but it can also be used
Annual Ryegrass	Waterways Bank Stabilization	for forage. Annual ryegrass is fast establishing and tall fescue is very persistant.

# **Managed Intensive Grazing (Without Tall Fescue)**

Hillside		Manual second second second
Components:	Best Uses:	Comments:
Orchardgrass	Managed Grazing	Highly palatable mixture of drought tolerant species
Meadow Brome	Baleage	and varieties that tolerate managed grazing very
Perennial Ryegrass	Haylage	well.
Red Clover		wen.
Ladino Clover		

# Creekside

Components:	Best Uses:	Comments:
HDR Meadow Fescue	Managed Grazing	Excellent grazing mix for maint sails. Doot from
Perennial Ryegrass	Baleage	Excellent grazing mix for moist soils. Best from
Timothy	Haylage	Pennsylvania to the north, but will also perform
Kentucky Bluegrass		well in high elevation farms in the south.
Alice White Clover		
Regalgraze Ladino Clover		

# **Kings Grazing Mix (New Formula)**

Components:	Best Uses:	Comments:
European Ryegrasses Grazing Tolerant Orchardgrass Meadow Fescue Red Clover	Grazing Haylage Baleage	Highly palatable mixture of late heading winter hardy ryegrass, orchardgrass, clovers and forage chicory. Excellent for high producing livestock!
Alice White Clover		
Chicory		

# **Managed Intensive Grazing (Fescue Based)**

Southern Deennaster		
Components:	Best Uses:	, Comments:
<b>Baroptima Plus E34 Tall Fescue</b>	Grazing	Our best grazing mix for south of the Mason Dixon
Orchardgrass	Haylage Baleage	line. This mix features 45% Baroptima Plus E34. Great heat and drought tolerance.
Perennial Ryegrass		
Freedom Red Clover		Toreat near and drought toterance.
Barblanca Ladino		

**BarOptima Plus E34 Tall Fescue**— Beneficial endophyte tall fescue. A soft leafed tall fescue with the longevity of an endophyte tall fescue without the negative effects.

# Beefmaster

Clover

Southo

De

Components:	Best Uses:	Comments:
Soft Leafed Endophyte Free TF Orchardgrass Perennial Ryegrass White Clover	Grazing Haylage Baleage	Excellent for beef grazing as well as dairy heifers and dry cows where the majority of the ration is from pasture. Best north of the Mason Dixon line and will perform well in moist to drier soils.

# Longer Lived Pastures-Various Management

### **Graze-All (Newer Mix)**

Components:	Best Uses:	Comments:
Perennial Ryegrass HDR Meadow Fescue Orchardgrass Kentucky Bluegrass	Grazing Haylage Baleage	This newer all grass mix is long lived and is designed for grazing many species where weight gain is desired. Graze-All will perform well in moist to drier soils. Add your choice of legumes if desired.

### **Horse Supreme**

Components:	Best Uses:	Comments:
Montana Meadow Brome Perennial Ryegrass Grazing Tolerant Orchardgrass Kentucky Bluegrass White Clover	Grazing Haylage Baleage	This mixture makes a classic looking pasture that is very palatable and long lived. A great mix for continuous grazing of horses and other livestock. Horse Supreme will perform well in moist to drier soils.

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# **Small Grain Forages**

#### <u>Mixtures</u>

**Triticale Plus-** This combination of Trical 815 and our annual ryegrasses is ideal for making high tonnage and quality, digestible forage. This two cut system makes great feed for dairy and livestock. For higher protein and nitrogen production, add crimson clover in your small box.

Mixture Content: Trical 815

Annual Ryegrass

#### **Manage Keys for Triticale Plus**

Seeding Info: Dates: Use the local barley seeding date guidelines as best guideline.

Rate: 100 lb/A

Depth:  $\frac{1}{2}$ " depth with a drill

#### **Nitrogen Fertility:**

Prior to seeding a moderate application of manure is desired. (50 to 75 units of available N equivalent) Spring green up: Apply 75 units of N with some sulfur

After first cut: Apply 50 to 75 units of N with some sulfur

#### 1<sup>st</sup> Cutting Management

Cut when crop canopy reaches a minimum height of 15"

Leave 4" of stubble height. This keeps the crop off ground and allows for good drying.

Ted crop when appropriate followed by raking or merging when crop reaches desired moisture. Harvest as Baleage or Haylage.

Apply nitrogen fertility after harvest is complete.

# 2<sup>nd</sup> Cutting Management

Cut approximately 3 to 4 weeks after 1<sup>st</sup> cut. Ryegrass is normally the strongest component and should not be coming into head.

Leave 4" of stubble height. This keeps crop off ground and allows for a strong quick 2<sup>nd</sup> cutting. Ted crop when appropriate followed by raking or merging when crop reaches desired moisture.

Harvest as Baleage or Haylage.

#### **Crop Rotation Considerations**

After second cutting we recommend killing Triticale Plus. The annual ryegrass component of the mix will become stemmy during the summer and is undesirable. Use of appropriate herbicides, rotovator or KV bottom plow are all viable options for control. Most herbicides require the ryegrass to have around 6 inches of regrowth to be effective. Check herbicide labels for details.

**Oats Plus**– The oats will give quick growth and winter protection of the annual ryegrass, even though the oats freeze out. Over the winter, annual ryegrass roots continue to grow and are ready to support early spring growth for forage and/or cover crop in the spring. Harvest spring forage similar to triticale plus.

Mixture Contents: Jerry Oats

Annual Ryegrass

**Double Play-** This mix combines the features of both the Oats Plus and the Triticale Plus. Designed for a harvest in both the fall and the spring. The oats provide fall productivity and the Triticale and Annual Ryegrass for the spring. **Mixture Contents:** TriCal 815

Oats

Annual Ryegrass

# **Individual Species**

**Triticale**– Our TriCal triticales are the best choice for forage, as their yield is typically 50% more than other small grains with the exception of spelt. Three tons of dry matter is common at flag leaf stage.

Ideal Use: Forage

Other Uses: Livestock Grain, Straw and Cover Crop

**Crop Rotation:** When harvested at flag leaf, corn for silage is a great follow crop. Choose a summer annual such as forage sorghum.

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**TriCal 815-** Our tried and proven triticale variety that has superior tillering; making thick stands. It typically has the best digestibility of all the forage triticales and is a great variety to mix with annual ryegrass and crimson clover.

**TriCal 718-** This triticale variety has very high yield potential. It's great for fall seeding with oats for a fall harvest. Since it's a taller variety, it is not recommended to be seeded with ryegrass. As a facultative triticale, it can be planted in the fall or spring.

**TriCal 141**– A great spring triticale for north of I80 (PA), and a fall or spring triticale for south of I80 (PA).

**Valor Barley-** As the earliest harvested grain in our area, barley allows for excellent double cropping opportunities. Valor is a newer variety with excellent winter hardiness and yield potential. Great crop for soft dough harvest as a corn silage stretcher or alternative. This variety is awnletted(very short awns) and is a taller variety making it an

Ideal Use:	Grain and Straw
<b>Other Uses:</b>	Forage and Cover Crop
<b>Defining Features:</b>	Short Awns, Taller

**Spelt**- Spelt is a late maturing small grain. Most varieties are taller and more aggressive in growth than wheat, and it can be used for forage or grain. It's management is similar to wheat and it has a very wide forage harvest window. Be sure to open drills wide because of it's bulkiness. King's offers two top yielding varieties.

> Ideal Use: Forage **Other Uses:** Livestock Grain, Specialty Grain, Straw and Cover Crop **Defining Features:** Wide Harvest Window, latest heading small grain

**Wheat**- With primary use as a grain and straw, wheat can also be used as a livestock feed as long as the quantity does not exceed one third of the grain for ruminants. If the primary goal of the crop is for marketing grain, manage for head scab to lower the risk of rejection. **Ideal Use:** Grain and Straw Forage and Cover Crop

**Other Uses:** 

**Spring Oats-** Seeded in late summer, oats make a great forage or cover crop. For best results seed forage oats 30-45 days before wheat planting dates. Yields of our forage oats can be as high as three tons of dry matter. They work great for setting up an early spring seeding of perennial forages such as alfalfa, clover and grasses as weeds are suppressed and a nice seed bed is formed. **Ideal Use:** Forage

> **Other Uses:** Cover Crop

# Fall Cover Crop Product Guidelines Dave Wilson, Research Agronomist

**Cover crop benefits:** 

excellent multi-purpose crop.

- **Erosion control**
- Build soil organic matter, increase soil aggregation & tilth
- Nitrogen fixation & recycling legume cover crops fix nitrogen, grass cover crops recycle nitrogen
- Nutrient trapping or scavenging recycle key nutrients, preventing them from leaching and running off
- Covers utilize manure more efficiently recycling more of the nutrients and reducing the losses over winter
- Root exudates feed beneficial soil microorganisms in the root zone
- Some cover crops can be used to extend the grazing season or as harvested forage

Appropriate Seeding Dates: Most farmers may know the appropriate date for seeding cover crops, but this is based on achieving 30% cover prior to winter for control of soil erosion. However, these seeding dates for cover crops have been determined only for controlling water and wind erosion. They were mainly based on plant canopy cover, not on



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development or their nutrient uptake ability. <u>The seeding date for maximum N uptake is two to three weeks ear-</u><u>lier than the date for adequate soil erosion control.</u> If N is not taken up by a cover crop in the fall it can be lost to leaching. This is especially important on farms with fall-applied manure, in terms of dollars of nutrients lost. Make it a priority to get cover crops established for maximum nutrient uptake and winter survivability.

#### Cover crops after wheat harvest in July.

Central PA and South: Crimson clover, CARGO, Three-Way Clover Mix, Common Medium Red Clover, Yellow Blossom Sweet clover, Annual Ryegrass.

Northern PA & NY: Three-Way Clover Mix, Common Medium Red Clover, Yellow Blossom Sweet Clover, Annual Ryegrass.

#### Cover crops aerial seeded into standing corn or broadcast at last cultivation in cultivated corn.

**Central PA and South:** Broadcaster Mix, Crimson clover, CARGO, Three-Way Clover Mix, Common Medium Red clover, Yellow Blossom Sweet clover, Annual Ryegrass, and Daikon Radishes.

Northern PA & NY: Annual Ryegrass, Broadcaster Mix, Common Medium Red clover, Daikon Radish, Three-Way Clover Mix, and Yellow Blossom Sweet clover

<u>Cover crops aerial seeded into Soybeans at leaf yellowing just before leaf drop or broadcast at last cultiva-</u> <u>tion in 30" cultivated soybeans.</u>

**Central PA and south:** Broadcaster Mix, Crimson clover, CARGO, Common Medium Red Clover, Annual Ryegrass, Three-Way Clover Mix, Yellow Blossom Sweet clover

Northern PA & NY: Annual Ryegrass, Broadcaster Mix, Common Medium Red Clover, Yellow Blossom Sweet Clover, and Three-Way Clover Mix

#### Cover Crops after Corn Silage.

Southeastern PA and South (Plant by September 10): Broadcaster Mix, Crimson clover, CARGO, Three-Way Clover Mix, Common Medium Red clover, Yellow Blossom Sweet clover, Annual Ryegrass, Daikon Radishes, Hairy Vetch, Vetch & Oats, and Oats

**Central PA and North (Plant by September 1<sup>st</sup>):** Broadcaster Mix, Common Medium Red clover, Three-Way Clover Mix, Yellow Blossom Sweet clover, Annual Ryegrass, Daikon Radishes, Hairy Vetch, Vetch & Oats and Oats.

#### **Cover Crops After Early Corn for Grain.**

Southeastern PA and South (plant by October 15): Triticale, Triticale Plus. Central PA and North (plant late August to September 15): Triticale, Triticale Plus. Cover Crops after Sorghum-Sudangrass.

#### Southeastern PA and South

Plant by Mid August after 2<sup>nd</sup> cutting of SSX):

• Plant Oats for Forage; cut oats by October 15, then immediately plant Triticale, or Triticale Plus. Plant by Mid September after 3rd cutting of SSX):

- Plant Crimson clover, let overwinter as a legume cover crop before corn.
- Plant Crimson Clover & Annual Ryegrass (mix) as a cover crop or early spring cut forage before corn.
- Plant Annual Ryegrass as a cover crop or for an early spring cut forage before corn.
- Late planting Rye as a cover crop and/or early spring forage.

# Central PA and North (plant late August to September 15 after 2<sup>nd</sup> cutting of SSX}: Triticale, Triticale Plus, and Huron Rye

#### Late Cover Crops after Soybeans or Corn for Grain:

Rye can be utilized after late harvested Corn or Soybeans. It also be utilized as an early spring cut forage or as a burned down cover crop before No-tilled corn or Soybeans or as a plowed down green manure cover crop before conventionally tilled corn or soybeans.

# Thoughts on Pasture Management by Joshua Baker, Marketing Manager

From Maine to North Carolina (King's network) we witness a common issue of over-grazing perennial pastures. Over -grazing occurs for multiple reasons. Here are a few:

- 1. The desire to extend the perennial grazing season as far into the fall as possible
- 2. The desire to graze fields as soon as possible
- 3. Resistance to feeding forage in the summer for fear of running out/buying more in the winter

While the list may go on, the fact is that conflict of interest exists between the need for forage and the management of perennials.

**The effect of overgrazing is evident in the plants root system.** Root growth directly correlates to forage growth. This doesn't necessarily mean that roots grow an inch for every inch of top growth. However, as the plant stretches toward physiological maturity, more energy is focused on root growth. In an overgrazed pasture, plants are suppressed and the plants energy is utilized to push new top growth only to have it nipped off by livestock. As the cycle continues the root growth stops and/or the roots actually regress. This type of rootsystem is weak and will not sustain when droughty summer conditions occur.

In addition to weakened root systems, **slow regrowth is also an effect of overgrazing**. With perennial grasses the energy reserves are found in the base of the stem; the first few inches above the soil. If this portion of the plant is over-pressured by grazing, the regrowth will be slow and the energy that is typically stored and used for root growth will be depleted.

**Soil health is also effected by overgrazing.** As the forage becomes suppressed, more soil is exposed. Exposing the soil to sunlight for lengthy periods of time causes it to be more susceptible to effects of dry conditions and soil erosion. High soil temperatures from exposed soil can also kill soil bio-life.

**In an overgrazing situation the plants that survive are typically the undesirable species.** These are the less palatable plants (weeds, K-31 fescue, etc) that receive less grazing pressure than the palatable perennials that were seeded. This gives them an opportunity to develop a deeper root system to access moisture in dry weather, allowing them to persist.

**Correcting or preventing these negative effects is a process involving managing the height of the forage.** To help determine the acceptable give and take between forage needs and the health of the plants, always consider grazing height. We typically recommend a starting grazing height of 8 inches for perennial stands. When pastures reach 3 inches, it's time to move the livestock to a new pasture which also must be at least 8 inches. If livestock are moved to a pasture that has not reached an acceptable grazing height, forage yield will be negatively effected. Mapping out a plan to move livestock every three days is a good practice.

**Develop a sacrifice area where pasture forage supply falls short of animal requirements and stored forage must be utilized.** This area would be separate from pasture areas, and utilized to keep livestock while supplemental forage is being utilized so that animals are kept off of the pastures. If supplemental forage is offered to livestock on the same pasture that has already been grazed to roughly 3 inches, then overgrazing will occur. Despite having the supplemental forage, livestock will still selectively graze the growing perennials as new growth develops. This means that the already short grass plants are now subject to continued grazing and foot traffic and re-growth will not occur.

Sacrifice areas can be developed in an area that you are interested in renovating. For example, an area that has a lot of bare ground. It's important that the lot is well drained so that animals aren't standing in mud, and it should not be adjacent to any waterways. Livestock MUST remain in a sacrifice area until one of your paddocks/pastures reaches acceptable grazing height. **Resist the urge to put them back on pasture too soon!** 

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# Side Bar: Continuous Grazing; Can it Work?

#### by Tim Fritz, President/Agronomist

While intensive rotational management can yield roughly two to three times that of a continuously grazed pasture, continuous grazing can work with good management (grass sward kept above 3" almost all the time). Needless to say, continuously grazed pastures that are abused, as the many of the continuously grazed pastures are, yield very little. The key is to keep livestock off pastures when grass is less than 3" by limiting turn out time with either an exercise lot or keeping them in the barn.

#### Yields from pastures on good soils:

Management Intensive Grazing (In at 8 to 10" and out at 3 to 4" in less than 2 days)= 4-6 tons of dry matter/acre Continuous Grazing (4 to 5" sward height) = 2 tons dry matter per acre Abusive management (short constant grazing pressure) = 0 to 1 ton of dry matter.

# Here's What They Say

**Terry Ingram (Terry owns and operates an organic grazing dairy in Brandy Station, VA and is a King's dealer)** "King's puts the research behind their products and I could always trust that they would provide the best seeds available for my customers in my area."

#### Keystone Ag Service (Greg and Jess Painter operate a dairy out of Mt. Pleasant, PA and are King's dealers)

"I find that my customers are impressed with how many varieties of perennial grasses and different varieties within the species that King's offers. They have limited selections at the "local feed mill" to chose from and this gives them an opportunity to utilize some other varieties. It's also helpful to know that if I can't answer a customer's question, my King's Regional Coordinator and King's Research Agronomist are on hand to help get the appropriate information to my customer."

#### Tom Adams (Tom is the owner/operator of Mara Seeds out of Marathon, NY and is a King's dealer)

"The amount of information that is available through King's research and the vast dealer network is unlike any one else. They provide great seed genetics and back it up with a staff that is a great resource for information."

# David Hunsberger (David is the owner/operator of Happy Hollow Dairy in Mifflintown, PA and is King's Central Region Coordinator)

"I was initially drawn to King's because of the selection and search for high energy grasses that would work on my farm. A specific example would be Meadow Fescue. This grass is currently receiving a lot of university interest as being beneficial to dairy and livestock feeding programs, and King's already has it in some mixes (i.e. Creekside)."



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Look out for the 2012-13 Masters choice Hybrid Guide. Evaluate your fields and tour local plots to know what works best on your farm.

