

The AMPAC Impact

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How BIG Is Your Forage Market?

By Aaron Kuenzi

Did you know that close to 35% of the US land mass is considered “grazing land” by the USDA? This is made up of 8% cropland pasture (defined as grazing rye, ryegrass, brassicas, etc... after some other field crop), 75% grassland pasture and range, and 17% grazed forest land.

In total there are 586 million acres of Pasture & Range Land in the United States with the majority of the acres in the western United States. However, even regions like the Northeast have 18% of the “tillable” acres devoted strictly to pasture. The Northeast has another 11% of its acres that are Cropland Pasture (double cropped) and 11% that are considered Forest Land Grazed. This means that in the Northeast there is a ratio of 4:10, Pasture & Range acres to Cropland acres. Even the Corn Belt states have around 8% of their total land area including Urban, Cropland, etc., dedicated to pasture land. (58% of their total land area is considered Cropland).

Major Uses of Land by Region (1,000 acres, data from 2002 USDA census)						
Region	Grassland Pasture & Range	Forest Land Grazed	Total Pasture & Range	Cropland Pasture	Total Cropland	Total Land Area
Northeast	3,025	1,472	5,990	1,493	13,700	111,390
Lake States	5,393	2,330	9,647	1,923	42,102	122,063
Corn Belt	13,078	6,315	19,393	7,255	95,728	164,579
Northern Plains	71,036	2,012	73,048	8,201	101,978	194,271
Appalachian	6,253	6,248	12,501	7,151	26,011	123,730
Southeast	8,282	6,991	15,273	3,641	14,824	123,320
Delta States	6,246	11,183	17,429	3,568	21,046	91,224
Southern Plains	115,750	7,203	122,953	18,498	55,670	211,497
Mountain	302,823	62,784	365,607	7,211	46,265	547,890
Pacific	52,338	27,508	79,846	2,847	23,949	203,890
Far West	2,297	359	2,656	46	277	370,159
United States	586,521	134,405	724,343	61,834	441,550	2,263,963

For more detailed information visit www.ers.usda.gov/Data/MajorLandUses/MLUsummarytables.pdf

How can we increase our markets?

There are two ways, taking business away from your competition and growing your markets. The traditional way to increase our market is taking business away from the competition by offering better products, service, and prices. While there is nothing wrong with offering better products and service to increase your market share, I would like to focus on increasing our market through growth.

Let’s use the Corn Belt region for an example. Only about 7% of the Cropland (corn, beans, etc...) acres are double cropped annually (Cropland Pasture). These are double cropped with annuals like Perfect Fit Brassicas, Feast II, Rye Grain, etc. This means about 7.2 million acres are seeded annually resulting in “repeat business”. If these acres were all seeded to annual ryegrass it would result in 290 million pounds of seed annually in the Corn Belt region alone. Even a small 2% increase in the amount of Cropland acres that were “double cropped” would result in an additional 76 million pounds (25% increase) of annual ryegrass sales. Double cropping is one way to for producers to get more out of their most expensive asset... LAND. By providing 1 to 4 additional months of forage, double cropping will also save the producer money on expensive feed. In most cases double cropping has shown to benefit the following year’s crop as well. What does a 2% increase mean for your region? Remember, this results in annual business.

Another way to grow your market is through pasture renovation. This doesn’t necessarily mean complete renovation it may just mean overseeding. Using the Northeast as an example, if pastures are renovated every 15 years that means 201,666 acres are planted annually. Increasing the “turnover” of pastures to every 10 years would increase annual plantings 50% (302,000 acres annually) and every 7 years would more than double the annual plantings.



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Here are a few reasons producers should renovate their pastures:

- Increase Pasture Production
- Improve Animal Performance
- Replace Toxic Grasses
- Plant Improved Forage Varieties
- Utilize Forages that Extend the Grazing Period
- Kill existing Undesirable Weeds and Grasses
- Become More Profitable

Pasture & Range acres vs. Cropland acres (1,000 acres, 2002 census data)			
Region	Grassland Pasture & Range	Cropland (corn, beans, etc..)	Cropland Pasture*
Northeast	3,025	13,700	1,493
Lake States	5,393	42,102	1,923
Corn Belt	13,078	95,728	7,255
Northern Plains	71,036	101,978	8,201
Appalachian	6,253	26,011	7,151
Southeast	8,282	14,824	3,641
Delta States	6,246	21,046	3,568
Southern Plains	115,750	55,670	18,498
Mountain	302,823	46,265	7,211
Pacific	52,338	23,949	2,847
Far West	2,297	277	46
*cropland acres that also get used for grazing (example: brassicas following corn)			

At Ampac Seed Co. we believe our products and innovative ideas are a true value to the end-user. The best way for Ampac and our distributors to be successful is to make sure the end-user is successful. We can do this by providing the right products along with the right approach and education. For more information on double cropping, pasture renovation, and the products to use visit ampacseed.com or give us a call.



The summer of 2007 will definitely be a year for the record books as one that had high heat and no rain. Temperatures exceeded 100° F for 15 days in the Tennessee area the first part of August, while even more days in Georgia and Alabama. Rainfall amounts had many areas going into the month of December 15-20 inches below normal, and at the time of this writing, the city of Atlanta only had enough available water for 90 days. Things are definitely dry!



2007 Drought Conditions

if not eliminated ideal pasture conditions. Stockpiling, while a great concept, did not happen due to the fact that there was nothing to stockpile. Hay quantities are tight and at record price levels and producers had to begin feeding hay much earlier than normal. It's not a pretty sight.

“What do we do now?” producers have asked. We face a very difficult dilemma and with only a scattering of rain in the area, things do not look good. Instead of focusing on the negatives, let's take a look at the opportunities in front of us as I see it.

While we can't control the rain, we can plan to help reduce the risks of shortages in our forage systems in the years ahead. Some practices that should be observed are:

- Renovate existing pastures by adding clovers to increase production and quality
- Soil test pastures and follow University recommendations
- Control herd size, reducing the number of animals to meet reduction of forages available
- Practice rotational grazing, allowing pastures time to recover from environmental and grazing pressures
- Establish both warm and cool season grasses and legumes so that season specific forages will be able to thrive during summer months or winter months
- Develop a summer annual forage program
- Think outside of the norm about grazing products (corn, soybeans)

Warm season perennial grasses are important forages for most of the southeastern United States programs. Most areas of cool season pastures were dramatically affected by this years drought conditions. Tall fescues, orchardgrasses, Festulolium, ryegrasses, and clovers were all severely overgrazed, and many lost significant stands. Warm season grasses produce energy through photosynthesis faster which allows them to use more of the sunlight that fall on their leaves. Warm season grasses use water efficiently and typically have deeper root systems than their cool-season counterparts. Another important aspect is that warm season grasses typically perform best when the temperatures are about 90° F, while cool-season grasses perform best when the temperatures are about 70° F.

Warm season perennial bunch grasses include Big Bluestem, Little Bluestem, Indiangrass, Eastern Gammagrass, and Switchgrass. These forages produce high quality forages early in the season, but forage quality drops rapidly as plants mature, just as with any other species of warm-season grasses. These native grasses typically have low seedling vigor, and weed competition can be a problem during initial

establishment. Typically it takes about 2 years to get a good stand established. Rotational grazing is critical for maintaining these stands of plants. Because of their sensitivity to close grazing or clipping, these plants are easier to use for hay, but can be utilized with grazing cattle.

Bermudagrass and Bahia grass are perennial grasses that grow well during the summer. Both are tolerant of close, continuous grazing and typically are productive from late spring (May) to mid-fall (October). Bermudagrass and Bahia are highly responsive to fertilizer, and can produce high quality forages if harvested at the early stage of maturity.

Summer annuals such as Sudangrass, Sorghum x Sudangrass, Pearl Millet, and Teff can be productive with timely rains. Sudangrass and Sorghum x Sudangrass grow quickly after harvest. Sorghum x Sudangrasses are more vigorous than Sudangrass, but are likely to contain toxic levels of prussic acid and nitrates during environmentally stressed periods. Sudangrasses produce smaller stems and cure for hay quicker. Both Sudangrass and Sorghum x Sudangrasses are available with the brown midrib genes (BMR) which have less lignin thus increasing palatability and digestibility. Millets have smaller stems and are leafier, but typically do not re-grow as rapidly as Sudangrass. Teff is a relatively new species of summer annual that can produce 6 tons per acre. Teff germinates quickly and can be ready for harvest in about 55 days.

Variety	Plant height and maturity of summer annuals sown May 1, 2007 at Lexington, Kentucky.						Yield (tons/acre)				
	Jul 11		Aug 17		Oct 2		2007				
	Grass	Turnip	Grass	Turnip	Grass	Turnip	Jul 11	Aug 17	Oct 2	Total	
Monarch V											
Sudangrass	60.0		57.0		30.8		62.0	1.51	1.58	1.08	4.17*
Special Effort											
Sorghum											
Sudangrass	64.5		52.5		34.5		59.0	1.42	1.48	1.19	4.09*
ProMax BMR											
Sudangrass	67.5		61.5		32.3		63.0	1.54	1.44	0.79	3.76*
NutraPlus BMR											
Sorghum-											
Sudangrass	57.0		40.5		31.5		53.3	1.25	0.97	0.87	3.09
Dessie Teff	19.0		19.3		16.0		59.0	0.89	1.54	0.64	3.07
ProMax+Pasja	51.5	11.5	42.8	13.3	30.0	7.3	62.0	0.80	1.18	0.89	2.87
Tiffany Teff	16.0		20.0		14.5		52.5	0.90	1.41	0.51	2.82
Pearl Millet	19.5		35.3		19.3		31.8	0.47	0.95	0.59	2.01
Foxtail Millet	23.8						75.5	1.29	0.00	0.00	1.29
Pasja Hybrid											
Brassica		11.5		10.5		6.0		0.56	0.30	0.06	0.92
Mean	42.1	11.5	41.1	11.9	26.1	6.6	57.6	1.06	1.09	0.66	2.81
CV, %	14.7	10.0	11.3	13.2	11.5	5.3	4.9	18.82	25.95	22.33	14.79
LSD, 0.05	9.0	2.6	6.8	3.5	4.4	8.0	4.1	0.29	0.41	0.21	0.60

*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

¹Maturity rating scale: 37=flag leaf emergence, 45=boot swollen, 50=beginning of inflorescence emergence, 58=complete emergence of inflorescence, 62=beginning of pollen shed.



Pro-Max BMR Sudangrass

forages when cool-season pastures are not being productive. However, the growing season is shorter with these plants compared to tall fescue, and there are risks associated with them. Using both warm will not totally eliminate all problems associated with drought, but they will help minimize some of the forage production problems we may face.

Cultivar	24-Jul			2-Oct			Total
	Maturity	% Moisture	Ton/ac	Maturity	% Moisture	Ton/ac	
HP200BMR	Vegetative	74.88	3.72	Heading	71.47	2.81	6.53
EXP3017	Vegetative	74.18	3.08	Headed	69.49	2.77	5.85
HP300BMR	Vegetative	75.48	3.37	Boot	72.87	2.40	5.78
Sweeter n Honey II	Vegetative	73.94	3.09	Heading	70.21	2.60	5.69
EXP7017	Vegetative	74.05	3.31	Heading	72.21	2.32	5.63
EXP2017	Vegetative	73.87	3.24	Headed	71.41	2.38	5.62
PRO-MAX BMR							
Sudangrass	Headed	66.83	3.51	Headed	66.89	2.09	5.60
EXHPD06	Vegetative	75.61	3.08	Boot	71.19	2.21	5.29
Sweeter n Honey							
BMR	Vegetative	75.34	2.93	Heading	73.19	1.73	4.66
Bundle King	Vegetative	76.79	2.02	Boot	72.50	1.14	3.16
Mean		74.09	3.14		71.14	2.24	5.38
LSD, 0.05		3.48	0.53		1.67	0.31	0.63
CV, %		3.21	11.46		1.60	9.30	7.98

Cool Season Annuals also have a good potential for an emergency crop following a drought or pasture shortage. Although cool season annuals do not thrive through summer heat and dry conditions, the quick germinating, and high feed values, will allow summer permanent pastures to get an adequate start prior to grazing pressures. Planting Pasja Hybrid Brassica after the soil temperatures (at 4 inches) are 55 degrees Fahrenheit and rising. According to New Zealand and Australian grazing programs, this will provide the same amount of dry matter as with annual ryegrass, but it will provide a higher quality feed potentially putting on 5 pounds per day as opposed to 2 pounds per day.



Feast II plus Brassicas

Dry matter yields of turnips, Feast II and oats sown March 19, 2007 at Lexington, Kentucky.			
Variety	Yield (tons/acre) 2007		
	May 18	Aug 8	Total
Feast II	0.57	1.05	1.62*
Pasja+Feast II	0.62	0.99	1.60*
Appin+Feast II	0.61	0.81	1.43*
Pasja+Oat	0.80	0.46	1.26
Purpletop+oats	0.73	0.29	1.02
Pasja	0.41	0.57	0.98
Purpletop	0.55	0.37	0.92
Appin+Oat	0.58	0.24	0.82
Oats	0.63	0.00	0.63
Appin	0.20	0.12	0.32
Mean	0.57	0.49	1.06
CV,%	24.17	31.02	17.48
LSD,0.05	0.20	0.22	0.27

*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD

Grazing Brassicas have been developed for re-growth. Therefore, they require some form of rotational or strip grazing in order to avoid overgrazing and allow re-growth. Begin grazing when the Brassicas are 12-20 inches tall, and try to leave 3-4 inches of stubble after grazing. Due to the high nutritive quality of Brassicas, it is recommended to introduce animals to them slowly by limit grazing (1 to 3 hours per day) for a week or so and then increasing the time spent grazing. Feed hay, or give livestock access to stockpiled grass while grazing Brassica crops. Sowing Brassica crops with Italian Ryegrass or Annual Ryegrass and/or small grains will add much needed fiber to the diet as well as stretch out the growing season.

While we do not know when we will totally recover from the drought of 2007, we will be affected by its results in the upcoming season. Unfortunately, there are no single answers to coping with these problems. However, with good management skills and practices, the recovery pains can be lessened. Plan now for recovery efforts as well as for potential future drought possibilities.



First and foremost I would like to wish everybody a Happy New Year! Secondly, I would like to thank all of you for choosing AMPAC Seed for your forage, turf, and wildlife food plot seed needs! As I sit here and pen this article it is raining outside, unfortunately it's not snow! It is two days before Christmas and our snow pack is melting quickly with warm temperatures and rain. It's always nice to have snow for the Holidays, but after a long year of drought conditions, every drop counts! I hope that all of you get the precipitation you need.

When I started with AMPAC Seed, my background was almost 95% turfgrass and 5% forages. As I look at the percents today it is almost equal or slightly favoring forages. Then comes our wildlife food plot seeds under the Wildlife Perfect line, though a smaller part of what AMPAC is about, it is growing with leaps and bounds and enters into the equation of percentage. As most of you are aware we are offering four stock mixtures that are adapted to all of our growing regions. We still can custom blend mixtures for our customers (with minimums), but I want to focus on our stock mixtures. I have spent numerous weekends away from home attending conferences and shows to kick this line of seed off. I can tell you that it has paid off! AMPAC Seed and Wildlife Perfect is now endorsed by the Ruffed Grouse Society, we are a Proud Sponsor of Quality Deer Management Association, have numerous Wildlife Biologists and Consultants recommending our product over other food plot seed companies. Please check out our website at www.wildlifeproof.com for testimonials and updates.

Wildlife Perfect has more than scratched the surface of the food plot industry, we have caught the attention of leading wildlife seed companies and they are really questioning who we are and what we are doing! AMPAC has entered Wildlife Perfect seed mixtures into the trials at Michigan State University. Three years ago, well named companies had several of their mixtures entered into the trials as well, in 2007, they all backed out! You can check out the performance data on our web site.

AMPAC Seed has some great data to back our Wildlife Perfect line of seed, but when the rubber meets the road, it's all about the bottom line... Please find in the chart below how Wildlife Perfect stacks up against other name brand companies and mixtures. In the chart, we have selected mixtures that are as close to our stock mixtures. Please note that some of the bag sizes are different and coverage area is different. When we devised the mixtures, AMPAC Seed selected varieties and seed types that work best together and offer the highest protein levels possible. Seeding rates were determined by sound agronomic principles and not just worrying about selling seed! Be assured that when selecting Wildlife Perfect mixtures, you are selecting high quality seed that has been proven agronomically in field trials across the country!

Wildlife Perfect is advertised on the Sportsman Channel, Quality Deer Management Association magazine, The Ruffed Grouse Society magazine, numerous local wildlife magazines and numerous local and national trade shows. Wildlife Perfect has caught on, and we have people looking for our mixtures. Thank you to all of you handling our

Wildlife Perfect mixtures and making Wildlife Perfect successful! For those of you that are not handling Wildlife Perfect, please contact any of us at AMPAC Seed and get the exciting details on Wildlife Perfect as well as some special programs we are offering to reward you in all of your hard work!

Though the Wildlife Perfect line of seed is my passion, I still look forward to working with you all on your improved forage and turf needs!

Attract the Wild... Scott