August 2015
Volume 10 #8

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www.rivervalley.ksu.edu

BEEF K-STATE CONFERENCE

Hosted by: Central Kansas, Midway, Post Rock, & River Valley Districts

When: Thursday, August 13 from 9:00am-1:00pm

Where: American Ag Credit– 925 W. Magnolia Rd., Salina, KS

RSVP: Friday, August 7 to Katelyn Brockus 785-325-2121

Cost: $5 Registration Fee, payable upon arrival (includes meal)

Keynote Speaker: Mr. Rich Porter

- Livestock producer from the Flint Hills and author of "Building Relationships & Management"

K-State Extension Specialist to review:

- Low stress livestock handling
- Year-round mineral supplementation programs

Town Hall Q&A

- Remember to bring your questions for the Extension Specialist

K-STATE Research and Extension

K-STATE BEEF CONFERENCE-continued

Many cattle producers have experience record returns this year but even in time of high profitability there are opportunities to enhance the management of the beef operation. "The idea of continuous improvement is an important management principle beef producers should employ, even when the cow-calf sector is profitable," said Bob Weaber, cow-calf specialist for K-State Research and Extension and one of the conference presenters. "Profitable times are good ones for managers to evaluate their operation and deploy new profit-improving practices, recognizing at some point ahead we'll experience leaner times."

The goal of the conference is for extension professionals and industry thought leaders to have a conversation with profit-minded cattle producers about different timely and economically impactful production and management topics. This year's focus is "Improved Management, Improved Nutrition, Improved Profits."

The keynote address will be provided by rancher and author Rich Porter of Reading, Kansas. Porter will discuss building successful personal and professional relationships. He has operated a cattle ranch in Kansas for a third of a century, expanding to include 6,000 head of cattle and 2,800 crop acres.

Joining Porter at this year's conference meetings will be speakers from K-State Research and Extension, including Justin Waggoner, beef systems specialist, and Chris Reinhardt, feedlot specialist. Waggoner will discuss low-stress cattle handling principles and techniques through the development of enhanced stockmanship skills. Reinhardt will discuss the benefits of a year-round mineral supplementation strategy. He will cover motivations for supplementation, practical feeding advice and cost containment methods.

RULES IN MAKING SOUND MANAGEMENT DECISIONS

It is that busy time of the year again. Hopefully by now you have gotten your lake and vacation time in this summer, so it is time to get back to the cattle herd and start thinking about what the month of August brings. August is when forages are maturing, weaning time is approaching, and weather is dictating several key management decisions. The summer months are heavily focused on the breeding season and cull cow selection as well as grazing management. These two management decisions will be discussed in detail along with general management decisions that must be considered within the month of August.

Rule number 1: It is crucial to remain firm in your operations desired breeding season. With high feed price inputs, this rule is one that should not be bent or broken. I know firsthand how hard it is to let your favorite cow go. I know what your thinking, "something had to have happened, and she just didn't get bred this year." While that may be true, it doesn't justify having a longer calving season or keeping a cow around that will only eat your money until the next breeding season when you may or may not get her bred back. The moral to this story is to ruthlessly cull all unsound or unbred cows/heifers from the herd.

With every rule, there is always a subcategory. With this said, here is rule number 1A. Remove the bulls after 60 days with the cows or 45 days with heifers. A longer breeding season will result in a longer calving season which will result in more sleepless nights checking cows/heifers during calving season. Create a tight breeding season window, and your calves will remain more uniform and will be easier to market down the road. This strict breeding season window will also create an increase in reproductive efficiency over time.

Rule number 2: Enhance grazing distribution by simple management decisions. First, place the mineral mixture away from water sources. This will result in a better grazing distribution as the cattle will walk to both mineral feeders and water on a daily basis. By placing the mineral away from the water, the forages will be grazed more uniformly. Second, observe pasture weed problems to aid in planning control methods needed next spring. Remember that weeds multiply faster than your ability to destroy them. Keep close management on pasture weeds to ensure optimum grazing efficiency. Also, incorporate a rotational grazing plan if possible.

Rule number 2A: Sample harvested forages and analyze them for nitrate and nutrient composition. This is a rule that I cannot stress enough. When I get producer questions on building a ration, the first question I ask is "have you tested your forages." If this answer is no, then it makes for a much larger chance of error. While we like defining our forages as poor, fair, good, and excellent, it is much more efficient and practical to build a ration based off of nutrient composition. This will give us a better starting point with getting your animals nutritional requirements met. My dad has always told me, "Numbers don't lie." This statement couldn't be truer with nutrient composition and the ability to meet animal nutritional requirements. The cost of testing a forage depends on how detailed of an analysis is desired. A basic nutrient analysis of forage costs $12. This is a small price to pay in comparison to a loss in feed efficiency or a nutrient deficient animal.

With these two basic rules and management guidelines, your operation will be more successful. Remember to stick to a breeding season, cull cows that need to be culled, use sound management decisions to increase grazing distribution, and sample harvested forages for nutrient analysis. If you have any questions or would like to stop by and have a cow chat with me, then feel free to stop by the Washington Extension office. Questions or comments can be directed to my e mail, kbrockus@ksu.edu, or by phone 785-325-2121.

River Valley Extension District 2015 Winter Wheat Performance Test

Cooperator - Gary Hatesohl, Greenleaf

Due to late maturity of the plot and continued delay of harvest due to welcome moisture, this plot was not harvested until the August RVED Ag Newsletter was going to print. Therefore, look for these results on the RVED webpage at www.rivervalley.k-state.edu or contact Kim Larson, kclarson@ksu.edu or call 785-243-8185.

K-State Research and Extension

North Central Kansas Experiment Fields

Fall Field Day

August 18th
6:00 p.m. sharp!

Location: Irrigation Field
2.5 Miles West of Scandia on the North Side of Highway 36

Learn about Current Agronomy Research Taking Place at the Experiment Fields and How The Results Can Be Applied to Your Operation!

Topics:

- Year in Review and Weed Control Challenges
- Optical Sensor Based N Management in Corn
- Soybean Response to P Fertilization in Corn
- Long-Term Effects of Fertilizer Placement
- Conventional Soybeans: Breeding and Seed Sources

**This program qualifies for earning CCA credits

Free Event

Catered Dinner by Tags Grill Provided by K-State Research and Extension
No pre-registration required

For Information Contact
NCK Experiment Field, 785-335-2836
Andrew Esser, Agronomist in Charge
River Valley District Office, 785-243-8185
Kim Larson, Agent

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River Valley Extension District

2015 Winter Wheat Performance Tests

Christian Tipton 4-H Plot- Munden, Republic County

BRAND	NAME	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)
Wildcat Genetics	1863	64.0	130%	59	13.3
WestBred	WB-Grainfield	62.8	127%	59	12.8
Limagrain	T158	58.6	119%	58	13.0
WestBred	WB-Winterhawk	55.0	112%	59	13.1
WestBred	Armour	54.4	110%	58	12.3
WestBred	WB-Cedar	54.0	110%	58	12.2
WestBred	WB-Redhawk	53.5	109%	59	12.2
Limagrain	T154	52.5	107%	60	14.6
Wildcat Genetics	Fuller	52.2	106%	58	13.5
-	-	50.9	103%	59	14.0
Wildcat Genetics	Everest	49.6	101%	62	12.6
-	-	42.2	86%	58	14.2
WestBred	4458	41.1	83%	59	13.3
Limagrain	LCS Mint	36.6	74%	58	13.2
Oklahoma Genetics	Billings	35.7	72%	59	12.9
Oklahoma Genetics	Gallagher	25.5	52%	60	13.0
	Average	**49.3**	**100**	**58.9**	**13.1**

Field Production Information:
Planting Date: September 28, 2014
Cropping History: Wheat, Conventional tilled
Seeding Rate: 90 lb/acre
Harvest Date: July 6, 2015

Cooperator: Mike Brown – Clay Center, Clay County

BRAND	NAME	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)
WestBred	WB-Cedar	72.6	128.8%	52.9	13.0
WestBred	WB-Grainfield	69.9	124.0%	54.1	12.9
WestBred	Armour	65.4	116.0%	46.6	15.2
-	-	63.8	113.2%	58.2	11.8
-	-	62.2	110.4%	55.8	12.0
WestBred	Winterhawk	61.6	109.3%	56.7	12.9
WestBred	WB-4458	60.6	107.6%	58.0	12.3
Limagrain	T154	59.2	105.0%	57.4	12.4
Wildcat Genetics	1863	57.1	101.3%	56.5	12.4
Limagrain	T158	55.3	98.1%	55.4	13.0
-	-	54.2	96.1%	55.2	11.5
Limagrain	LCS Pistol	48.4	85.8%	55.9	11.8
Limagrain	LCS Mint	46.8	83.0%	55.9	12.1
Wildcat Genetics	Everest	45.1	80.0%	59.1	11.3
WestBred	WB-Redhawk	40.7	72.2%	52.4	13.2
Limagrain	LCS Wizard	38.9	69.1%	55.8	12.5
	Average	**56.4**	**100**	**55.4**	**12.5**

Field Production Information:
Planting Date: October 20, 2013
Tillage: Conventional
Seeding Rate: 95 lb/a
Harvest Date: June 29, 2015

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Note: When making a final variety selection, please use all resources and information available including K-State Research and Extension experiment sites across the state, seed companies, and your past cropping history. Be sure and evaluate all aspects including varieties, disease, day length, fertilization, insects, and growing conditions. **PLEASE NOTE these are not replicated plots and should be used along with the replicated K-State Research and Extension performance test data at the website:**
http://www.agronomy.k-state.edu/services/crop-performance-tests/winter-wheat/2015-wheat-performance-test.html

K-STATE Research and Extension

River Valley Extension District

2015 Winter Wheat Performance Tests

North Central Kansas KSU Experiment Field- Belleville, Republic County						
BRAND	NAME	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	HT (in)
WestBred	WB-Grainfield	64.7	151.1	58.2	12.6	30
Limagrain	LCH13DH-20-87	58.7	137.1	57.9	16.5	35
Syngenta	SY Monument	58.0	135.5	55.2	13.2	30
Nebraska	NE10589	56.0	130.9	56.4	12.1	34
Wildcat Genetics	1863	54.7	127.8	56.8	11.8	29
Watley Seed	Tam 204	52.3	122.3	54.9	13.0	31
Texas AgriLife	Tam 114	51.3	120.0	57.8	12.5	32
Limagrain	LCS Pistol	50.3	117.6	55.7	11.8	29
Wildcat Genetics	Wabash	48.3	113.0	57.8	12.3	29
Nebraska	Freeman	48.0	112.2	55.8	12.8	30
WestBred	WB-Cedar	47.3	110.6	55.7	13.3	26
Limagrain	T158	46.7	109.1	56.1	11.1	29
Limagrain	LCH12-012	45.7	106.7	55.8	11.5	33
WestBred	Winterhawk	44.3	103.6	56.6	14.4	32
Nebraska	Robidoux	43.3	101.3	56.0	12.1	33
Limagrain	LCH12-014	42.7	99.7	56.2	13.1	33
Wildcat Genetics	KanMark	42.3	98.9	64.2	12.9	25
Syngenta	SY Southwind	41.7	97.4	55.2	14.8	28
Syngenta	SY Flint	41.0	95.8	58.2	13.8	29
Syngenta	SY Wolf	38.7	90.4	53.2	18.6	29
Wildcat Genetics	Denali	38.3	89.6	57.2	12.6	33
OGI	Doublestop CL+	36.0	84.1	55.7	12.9	33
Wildcat Genetics	Everest	35.3	82.6	58.5	12.6	27
Limagrain	LCS Mint	35.0	81.8	52.6	12.6	33
WestBred	WB4458	34.7	81.0	56.9	12.1	28
WestBred	WB-Redhawk	29.7	69.3	53.0	12.6	28
Dyna-Gro	HRX1520	27.3	63.9	53.3	12.6	27
OGI	Iba	25.3	59.2	54.1	12.3	29
WestBred	Armour	23.3	54.5	50.8	11.4	25
Limagrain	LCH Wizard	22.7	53.0	55.6	12.9	26
	Average	42.8	100.0	56.0	13.0	30

Note: When making a final variety selection, please use all resources and information available including K-State Research and Extension experiment sites across the state, seed companies, and your past cropping history. Be sure and evaluate all aspects including varieties, disease, day length, fertilization, insects, and growing conditions. **Other replicated K-State Research and Extension performance test data can be found at the following website:**

http://www.agronomy.k-state.edu/services/crop-performance-tests/winter-wheat/2015-wheat-performance-test.html

Knowledge for Life

Kim Larson
Crop Production Extension Agent
785-243-8185; kclarson@ksu.edu

IS ADDING LIVESTOCK THE SOLUTION TO PROFIT MARGINS?

With considerably lower crop prices and unchanging input prices many farmers across the state and country are beginning to wonder if their margins are enough to survive. Kansas Farm Management Association (KFMA) data shows that over the last decade farm income has become more dependent on crop production and less dependent, and in some cases hindered, by livestock income. This spring, as we were preparing to meet up with our producers and discuss ways to supplement decreasing crop farm income, we economists in the North Central KFMA decided to look into the impact of livestock on farm income over a longer period of time.

As you can see in Figure 1, from the mid 1980's through the mid 1990's crop income and livestock income on farms were fairly equal. In the mid 1990's, we started to see crop income become more important to farms than livestock income. The crop boom in the mid 2000's started a time when livestock income was an afterthought compared to crop income on the farm. It shouldn't go unnoticed that livestock income on the farm did increase over the 20 year period from 1985-2014, it just did not come close to keeping pace with crop income. Notice that there is a correlation with an increase in one side and a decrease in the other. This is apparent in both livestock and crop, as crop income surged in both the mid 1990's and mid 2000's, livestock incomes stumbled, and in 2014 as livestock incomes jumped, crop incomes fell.

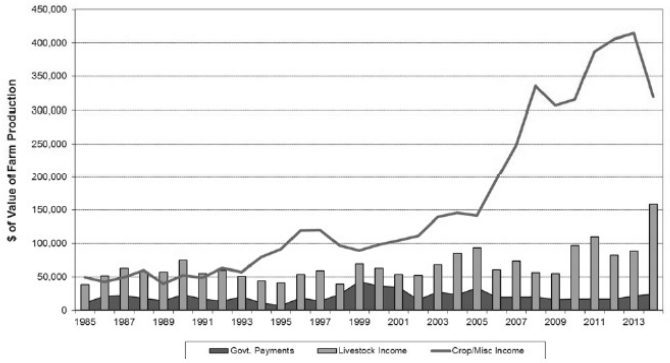
We decided to look into this a little further and see over time how profitability stacked up between crop only farms and farms that were diversified with at least half of their time and management devoted to livestock, referred to as 50/50 farms. Net farm income between the two farms were fairly equal through the 1990's, with 50/50 farms having a slight edge over the crop only farms. About the mid 2000's, when crop prices greatly increased, crop only farms net farm income increases greatly outpaced 50/50 farms. 50/50 farms were seeing a good increase in net farm income, but it was held down by high feed costs which hindered their livestock enterprises. Splitting up the 20 year period into 3 parts, 1984-1999, 2000-2005, and 2006-2013, after adjusting for inflation, 50/50 farms averaged a $6,000 net farm income every year for the period 1984-1999. From 2000 to 2005, 50/50 farms saw a $21,000 net farm income per year advantage. However all gains made by being a 50/50 farm from 1984-2005 were quickly lost by crop only farms averaging $74,000 higher net farm incomes from 2006-2013. This is why we saw a decrease in livestock with our members, because as they saw the decrease in livestock profitability, they opted for the more profitable crop only operation. Most farms did not completely get rid of livestock; they did decrease the intensity of their livestock so they could focus their attention on the crops, which were making the larger portion of their income.

After seeing that livestock has added value to farms over time, just not in recent years, we decided to look at what percent of gross farm income came from livestock in different profit groups. In 2014, the High-Profitable Quartile had $387,563, or 46%, of their gross income from livestock, compared to $32,704 or 9%, with the Low-Profitable Quartile. This is something that had changed greatly over time. In 2000, similar to 2014, the percent of gross income from livestock was much higher for the top quartile, over 50%, than the low quartile, about 30%. Throughout the 2000's the percent of gross income from livestock dropped for the top quartile, dropping to slightly below 10% in 2008, as the low quartile group stayed fairly steady at 30% of their income from livestock. In the late 2000's and early 2010's both groups had about 20% of their income coming from livestock. Over the 15 year period, farms in the top quartile averaged 3.5% more of their income coming from livestock than the low quartile group. This may not sound like a large difference, but it does show that the more profitable farms have shown a history of having more livestock.

After getting together and interpreting the data, we concluded what most would expect, there is a benefit to having livestock. However, in the recent history, it has been more of hindrance than helpful. The thing is, our farms are not expecting recent history to be the norm for their farm for the next few years. They are expecting lower crop prices, which would in turn lead to lower crop profitability. If this is the case, we need to look back further than the last 10 years into a time that would be more similar, and in so doing, it appears that adding livestock to an operation is a benefit.

Kansas Farm Management Association, North Central
Dave Rempe, Bob Kohman, Trenton Hargrave, Will Feldkamp

Figure 1 NCK Farm Management Association Value of Farm Production, 1985-2014



CONTROLLING SPIDER MITES

The hot and dry days of August and early September typically become ideal growing conditions for spider mites that can be very troublesome for gardeners. Spider mites attack a variety of garden and landscape plants, so they are a pest we should scout for regularly.

Spider mites are very small and often times we keep an eye out for the damaging effects of feeding. Look for stippling on the upper surface of the leaves as well as some fine webbing on the underside of the leaves. These tiny arthropods (they are not true insects) are often difficult to see due to their size and their habit of feeding on the underside of leaves. If mites are suspected, hold a sheet of white paper beneath a leaf and tap the leaf. Mites will be dislodged and can be seen as tiny specks on the paper that move about.

Spider mite control can be challenging as we really don't have any chemicals labeled for gardens crops. In fact, one of our standard garden insecticides, carbaryl, commonly known as Sevin, kills many of the natural predators for spider mites and can actually make the problem worse.

For ornamentals crops there are some products available at local stores that list spider mites on the label among the pests controlled. For our garden crops, however, we really don't have a good chemical option. For these crops, we must use the habits and weaknesses of the spider mite against them. A strong jet of water directed to the underside of the leaves can be used to remove the mites but may not be as easy as it sounds. To accomplish this, some gardeners use a j-shaped water wand hooked to a shut-off valve. On the end of the j, they place a jet nozzle. This way, a powerful spray of water may be directed upward to the underside of tomato, pepper, squash, or cucumber leaves.

Horticultural oils and insecticidal soaps can be safely used on garden crops and may be helpful in spider mite control. Spray early in the morning when temperatures are cooler and plants have rehydrated.

Repeated sprays will likely be needed for any of the above methods as the life cycle of the spider mite is very short .

GEARING UP FOR FALL GARDENING

The summer heat has finally arrived and the last thing most gardeners are thinking about are the cool weather crops that thrive in the chilly spring and fall temperatures. However, now is the time to be starting seedlings for many of these veggies to ensure a timely harvest this fall and early winter!

There are many benefits to planting a garden for fall harvest:

⇒ Fall harvested plants are often times varieties that store long into the winter giving you fresh, nutritious veggies for a greater part of the year.

⇒ Many of these crops' flavors are enhanced in the frosty fall weather due to the starches being converted into sugars, making them sweeter and sometimes giving them a whole new flavor!

⇒ If you market your produce, demand for fresh veggies is high in the fall and winter because most people's gardens are slowing down in production.

⇒ There is less insect pressure in the fall! Insects have eaten all summer long, reproduced, and are on the decline. This is a huge perk to growing Cole crops like cabbage because caterpillars can wreak havoc on them in the spring.

⇒ Less weed pressure! Most plants' growth slows down with the shortened days of fall so even the weeds don't grow as quickly.

The key to planting a fall garden is planning ahead. The first frost date minus the 'days to harvest' of your crop equals the planting date. The first frost date in our area is generally around the middle of October. Veggies that can be started around this time of year and harvested into the fall are beans, potatoes, lettuce, spinach, carrots, chard, beets, kohlrabi, summer squash varieties that are quick to mature, broccoli, Brussel sprouts, cabbage, cauliflower, kale, radish, cilantro, mustard, and turnips.

DIVIDING BEARDED IRIS

Bearded irises are a favorite for many Kansas gardeners and are well adapted to our area. The plants thrive with little care and multiply quickly. After several years, however, the centers of the clumps tend to lose vigor and the flowering occurs toward the outside resulting in a less than desirable flower bed. Dividing iris every three to five years will help rejuvenate them and increase flowering.

Dividing iris from late July through early August is ideal. Because iris clumps are fairly shallow, it is easy to dig up the entire clump. The root system of the plant consists of thick rhizomes and smaller feeder roots. Use a sharp knife to cut the rhizomes apart so each division consists of a fan of leaves and a section of rhizome. The best divisions are made from a double fan that consists of two small rhizomes attached to a larger one, which forms a Y-shaped division. Each of these small rhizomes has a fan of leaves. The rhizomes that do not split produce single fans. The double fans are preferred because they produce more flowers the first year after planting. Single fans take a year to build up strength.

Rhizomes that show signs of damage due to iris borers or soft rot may be discarded, but you may want to physically remove borers from rhizomes and replant if the damage is not severe. It is possible to treat mild cases of soft rot by scraping out the affected tissue, allowing it to dry in the sun and dipping it in a 10 percent solution of household bleach. Make the bleach solution by mixing one-part bleach with nine parts water. Rinse the treated rhizomes with water and allow them to dry before replanting.

Cut the leaves back by two-thirds before replanting. If the name of the cultivar is known then use a permanent marker to write the name on the leaf fan to preserve the identity while transplanting, then use a permanent plant marker for id.

Select a site with good drainage, good air movement, and that gets 5 to 6 hours of sun each day for the iris bed. Prepare the soil by removing weeds and fertilizing. Fertilize according to soil test recommendations or by applying a complete fertilizer, such as a 10-10-10, at the rate of 1 pound per 100 square feet. Adding compost will improve the conditions of many of our area soils for flower beds. Mix the compost and fertilizer into the soil to a depth of 6 to 8 inches. Be wary of using a complete fertilizer in areas that have been fertilized heavily in the past. If phosphorus levels are high then use a fertilizer that has a much higher first number (nitrogen) than second (phosphorus). Fertilize at planting and again in late winter to early spring as the plants begin spring growth.

For an instant clump, plant three rhizomes of the same variety together in an eight inch circle with the fans facing outward. Plant these clumps about 4 feet on center or if planting individual rhizomes space about 2 feet on center. Do not plant iris too deep. Each rhizome should be covered with soil so that the upper side of the rhizome is just barely below or even with the soil surface. Water thoroughly to settle the clumps in and then water as needed to provide moisture but not so much as to keep the soil wet. The plants will immediately begin to grow roots and should result in a beautiful flower bed for the coming years.

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RIVER VALLEY DISTRICT
"2015 UP-COMING MEETINGS & EVENTS"

DATE	TIME	PROGRAM	LOCATION
August 10		Field Day/Horticulture Research Update	Olathe
August 13	9am	K-State Beef Conference	Salina
August 18	6pm	NCK Experiment Fields-Fall Field Day	2.5 miles west of Scandia on Hwy. 36
August 20-21		Dealing With Drought	K-State Alumni Center
Sept. 24		Beef Stocker Field Day	Manhattan
Sept. 29		Agricultural Lenders Conference	Garden City
Sept. 30		Agricultural Lenders Conference	Manhattan
Oct. 3		Annual Pullet Sale	Manhattan
Oct. 28-29		Income Tax Institute	Wichita
Nov. 4-5		Income Tax Institute	Hays
Nov. 12		Crop Insurance Workshop	Salina
Dec. 1-2		Income Tax Institute	Topeka
Dec. 2-3		Income Tax Institute	Salina

Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision, or hearing disability, contact John Forshee, Director, River Valley Extension District # 4, 322 Grant Avenue, Clay Center, KS 67432. Phone 785-632-5335.