# *Water Wise*

**A Newsletter Promoting Fall River Watershed Improvement Strategies**
**A Publication of the Kansas Alliance for Wetlands & Streams (KAWS) www.kaws.org**

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## Saving Money & Time

Summer is winding down, and after all the rain from last spring, it seems odd to be wishing for a nice rain. However, we are way ahead on soil moisture than this time last year, and some good harvests will be finding their way to the bin in the next 45 days or so.

We have put up lots of hay this year, and will need to pay attention to how we feed that hay in our watershed this coming winter.

Late summer and fall is a busy time, but plan to join us at the Pam & John Cowley place on September 13.

***This newsletter funded by an Environmental Protection Agency Region 7 Watershed Improvement Grant***

## *Upcoming Events*

### Fall River Watershed Field Day

**Sept 13 – 4:00 p.m**. John and Pam Cowley farm – 1076 River Road - or just over a mile west of the Eureka Golf course.

This will be Thursday, but late enough to allow you to be at the livestock sale most of the afternoon. We will view and discuss the grazing paddocks along the river, the livestock water system that John has installed, some brush management, and streambank erosion/stabilization, water quality comparisons, streamside buffers, and learn some techniques to determine forage available for grazing.

The part of the river we'll be viewing was at one time essentially the Eureka swimming hole – back before the city pool was constructed.

We will conclude with a picnic supper. It will be sandwiches, so I don't need a "hard" count, but some clue as to how many will come will be helpful. If you're planning to attend, please call me at 620-583-7455. This will be informative, but also a fun field day lasting only a couple hours.

Bernie Obermeyer, GW County buffer coordinator, and Dale Kirkham of the Rural Center will be helping me with this evening field day.

***Also – on Thursday, Sept 6 Tallgrass Legacy Alliance Meeting in Cassoday Comm Bldg at noon, followed by tour of Vestring pasture water control structures.***

## Sericea Management

I know most of you are tired of reading about sericea lespedeza. But it's now September, one of the major control times for sericea. With the longer nights of September, and the cooling temperatures, sericea will begin to flower. When sericea is in full bloom, we are able to get good control using the metsufuron herbicide. The most common "street name" of metsulfuron is Escort, but there are other generic names for the same herbicide.

It is important to wait till you see a "bloom" across the stand of sericea lespedeza before applying metsulfuron. Apply at the rate of one-half ounce per acre with a non-ionic surfactant, in about 20 gallons of water. This amount of water and herbicide solution per acre will allow for good coverage - very important for killing sericea. You also need to add a non-ionic surfactant to the solution.

Many of you will be doing some "spot" spraying with smaller spray rigs. For each 5 gallons of water, put in 1.5 grams of metsulfuron and 1.5 ounces (3 tablespoons) of a non-ionic surfactant. OR - if you're using even smaller amounts, put 0.3 grams of Escort and 2 teaspoons of non-ionic surfactant per gallon of water. Take the time to mix this solution carefully in a small amount of water to be sure the powdered metsulfuron goes into solution before putting into your spray rig.

It's very important to "scout" your pastures and kill the first few plants you see. Spot spraying scattered, beginning infestations is the key to control at a reasonable, minimal cost. Waiting till the invasion looks like a "problem" will be costly and result in years to catch up with the invasion of sericea.

## Buffers – Common Sense Conservation

One of the best ways to reduce erosion is to protect the soil surface with a cover of growing plants or crop residue. Residue and vegetation slow runoff flow, giving the soil time to absorb more water, reducing runoff of fertilizer nutrients, and erosion.

The Continuous Conservation Reserve Program (CCRP), available at the Natural Resources Conservation Service (NRCS), provides financial and technical assistance to plant native vegetation in environmentally sensitive areas of crop fields. Voluntary signup of CCRP is available year-round and includes a $100/acre signup bonus. Annual rental payments for cropland enrolled in the program have just been increased, with some soil types averaging over $100 an acre.

Additional incentives make up 90% of the cost of installing buffers and are offered for most buffer practices. Landowners retain all private property rights. For more information, call 620-583-5544, ext. 3, and talk with Bernie Obermeyer, watershed coordinator.

## Farm Pond Maintenance

*Borrowed from the Grassland Watershed – a KSU Newsletter*

A good pond is a very valuable asset, especially for livestock producers. They are used for livestock and household water, fish and wildlife habitat, and recreation. It is estimated Kansas has from 140 to 400 thousand ponds. Building ponds began about 1900, long before the Soil Conservation Service was organized in 1935. The rate of pond construction peaked between the mid 1940s and the late 1960s. This means that most ponds are over 40 years old.

Ponds have a limited life. Research has found that 30 to 90 percent of ponds present in 1950 had disappeared by 2000. Filling with sediment and failure from a dam breach or emergency spillway wash-out are the most common reasons for loss of a pond. Well maintained ponds meet the intended purposes best and thus are the most valuable.

Use this checklist of "*Characteristics of a Good Pond*" to score each of your ponds this fall.

► Minimal water losses due to seepage
► Embankment not damaged by settling or
► No traffic (animal or vehicle) damage or wear on dam, spillway, or at waters edge
► Only a small amount of sediment accumulation
► Principal spillway (pipe) functions well and is in good repair
► Emergency spillway is in good repair and is protected by a good grass cover
► Animal access to water is restricted
► The dam, waters edge, and spillway are free of trees (trees more than 30 feet from the water are acceptable)
► Little erosion at the waters edge along dam or around pond.

When livestock have unrestricted access to the water, there is bank sloughing, and degraded water quality. This damage is easily prevented by fencing the pond and installing a waterer below the dam.

Improved cattle performance and safety (remember cattle through the ice last winter?) is worth more than the installation cost. A dam embankment is the single most important part of a pond, and the emergency spillway is a close second. These must be maintained in good condition for a pond to function well.

During inspection, look for erosion, burrowing animal damage, and livestock damage to the dam and spillway. Take prompt action to correct any damage that is found. When a pond is below a major sediment source, protect the soil to extend pond life. Many older ponds have sediment accumulation in the bottom. Sediment carried in inflow water and from erosion at the edges are the 2 major sources. Fencing the pond is usually all that is needed to control erosion at the pond's edge. Controlling upstream erosion on cropland and grasslands is the best way to reduce sediment inflow. A wetland or sediment control dam constructed at a pond's inflow end collects sediment and prevents it from entering deep water.

A pond can only be as good as the care and protection it receives. To maintain the value of a pond, take steps to maintain and protect it from damage. Without proper maintenance a pond will not serve its full purpose well or last a long time.

After several years many ponds accumulate sediment deposits that reduce the stored water depth and available water supply during dry periods. We saw this problem to a huge extent in the summer of 06.

## Pasture Cattle Checklist

I had the following checklist in last springs' newsletter, but now that cattle are coming off grass is the best time to ride the pasture and take note of how it was grazed, and record any problems that should be addressed. We had more than plenty of rain last spring, so this year should amplify any eroding cattle trails or other erosion

sensitive places. While you're scouting for sericea, take note of the following as well.

- ✓ Do you have areas either under or overgrazed?
- ✓ Do cattle have free access to streams?
- ✓ Do you have bare streambanks?
- ✓ Do you have eroded livestock trails?
- ✓ Will you or have you enhanced livestock distribution by removal of undesirable woody plant species along upland drainages?
- ✓ Will you rotate salt and mineral sites? – *and feeding sites this winter?*

## Fertilize Fescue Pastures for Winter Forage Production

Feed accounts for over 65% of the cost of maintaining a beef cow for a year in most cow-calf situations. By far the best way to reduce feed costs, is to increase grazing forage and reduce the feeding of hay. A proven method to improve fescue (or brome) forage production and quality through the fall and into winter is to fertilize in late August or very early September.

An application of 40 to 50 pounds of nitrogen should boost forage production by about 1,600 pounds. In addition to the increased production, the crude protein content should be about 4% higher in October and 6% higher in December, compared to un-fertilized pasture. A bred cow needs about 8% protein in her diet. Fescue fertilized in early September should be about 14% protein October through December. As long as adequate forage is available, a pregnant cow can be wintered with no supplemental feed. Some supplemental feed may be needed during the last 1/3 of gestation or after calving depending on cow and pasture condition.

Fall fertilization not only improves forage quality and quantity, it also improves the root vigor of the stand. Increased root vigor leads to a thicker stand that is more competitive against weedy species. Don't overlook phosphorus fertilization in the fall. In addition to the 40 to 50 pounds of nitrogen, phosphorus should be applied as recommended by soil test. Without a soil test, apply at least 25 pounds per acre. September is the best time to apply phosphorus, even though spring application will supply the needs. Phosphorus is important to root growth, and will make the fescue plants more winter hardy.

September is normally one of our wetter months. If we are able to combine some timely rains with fertility and management, we should be able to stay out of the hay pile for some time.

## Riparian Buffers Yield Improved Water Quality

Riparian buffers, also called filter strips, are zones of vegetation (consisting of trees, shrubs and native grass) along streams that border crop ground. Recent Iowa research shows these buffers do a tremendous job of removing excess nutrients and reducing sediment erosion.

In a decade long study, the Iowa research team found that a 66 foot wide buffer installed on stream-banks along a 7 mile stretch bordering row-crop fields, reduced erosion by 72 percent. Another study in Georgia showed that grass-forest buffers can be effective in removing excess nitrogen and phosphorus in surface runoff from adjacent fields. Similarly, herbicide levels were greatly reduced when field surface runoff was "filtered" through a riparian buffer.

## Make Grazing Records Management Tools

Right now, is the best time to ride the pastures and assess their condition, and the amount of forage still present. Did you take half and leave half? If you didn't leave half this year, you need to reconsider your grazing management. In fact, comparing pasture condition this year to last, would be very useful information.

What about grazing distribution? Likely, last year the cattle grazed the entire pasture short. This year, there may be areas untouched – and yet – areas that are again short. Ask yourself why that is and what can be done. Perhaps it's salt placement, water location, or maybe a "loafing" tree should be cut down.

A simple record of pasture use can be a valuable tool in planning for the future. You use animal production records when selecting sires or culling cows. So begin recording "performance" records of each pasture.

The number of cattle that can be grazed for a specific time depends on the productivity and composition of the vegetation in the pasture. Long term, achieving proper use of pasture vegetation is most beneficial to the resource and is also most profitable. Achieving proper use requires knowledge of cattle feed requirements and the feed supply of the pasture. Determining animal demand is not difficult; it is a direct result of body weight.

Estimating pasture productivity is more difficult- that's where simple records of past grazing can be helpful. Useful grazing records will include pasture size, turn-in date, removal date, number of livestock and class of livestock. A "good" estimate of animal weight would also be useful. Many pocket record books such as the red IRM Record books have a section designated to maintain pasture records.

If you've been keeping a careful grazing history, use it to develop future grazing plans. If you haven't kept pasture records, resolve to begin now, while the memory of this year is still fresh, and begin to use them for planning next years' grazing season.

## Top Ten Pasture Signs

By Dale Kirkham

***Top ten signs that a neighbors' pasture needs a change in management.***

10. Fence posts are leaning at a 45 degree angle out over the road ditch.
9. Coyote hunters have posted "travel at your own risk" signs at each gate.
8. The folks in town know the pasture as the "Christmas tree pasture".
7. Some neighbors use an open ridge in the southwest part of the pasture as a golf driving range.
6. Many open cows as the bulls prefer the good lookers across the fence.
5. The County Agent wants to use the pasture for a brush and weed control demo site with goats.
4. Real estate developer wants to advertise for lots in "Broom Weed Estates"
3. Lawsuit pending by a tree hugger who was impaled on a locust tree for 2 days.
2. The pasture was nominated for a wetland award because the ponds are silted in and full of cattails.
1. Hay rings along the creek resemble an Indian burial ground.

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