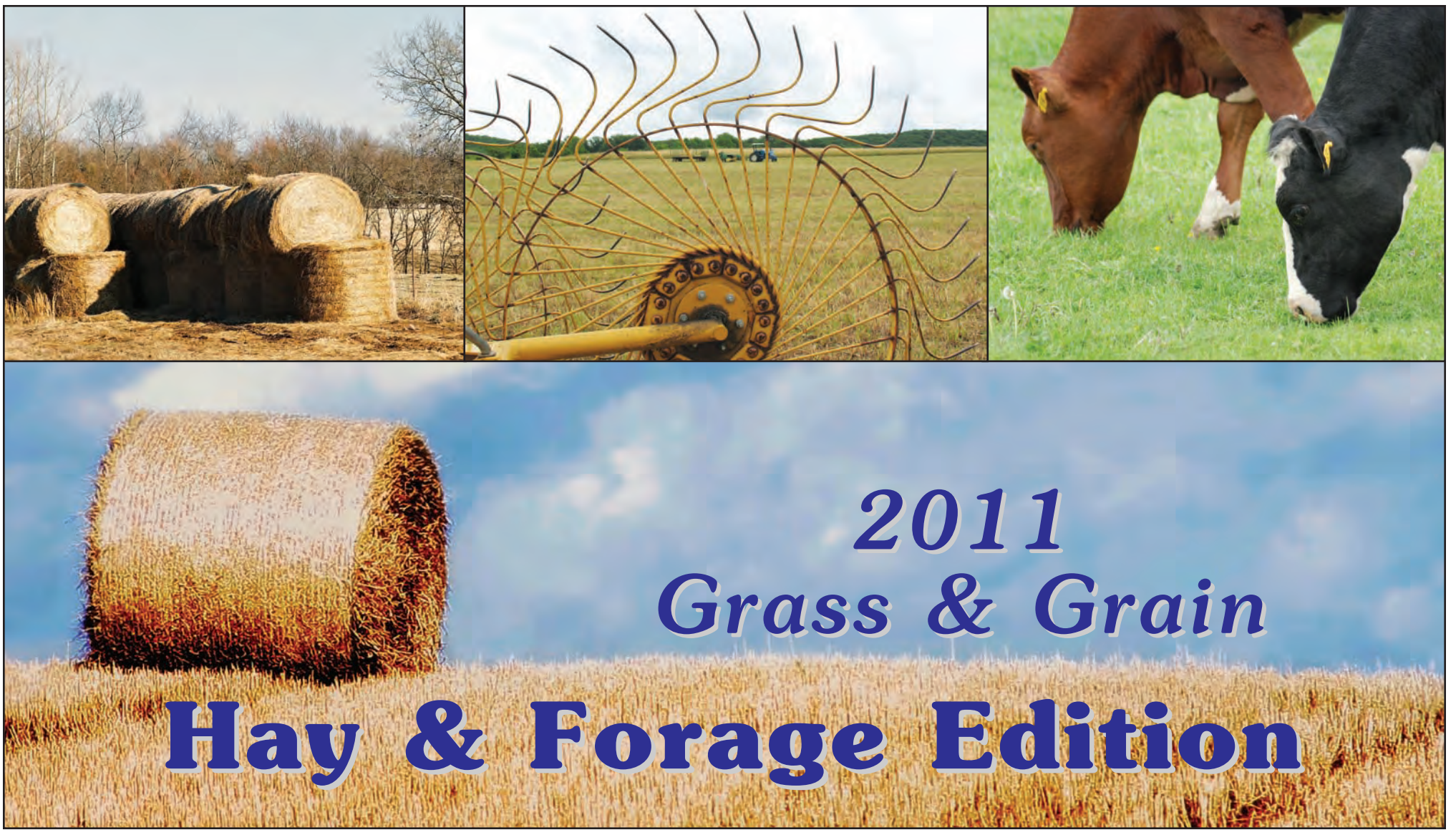

Certified weed-free forage and mulch program available

In 1996, the North American Weed Management Association (NAWMA) brought together representatives from federal land management agencies, state agencies, counties and forage producer to develop a uniform standard for certifying forage and mulch free of noxious weed seeds. The standards are designed to:

- Assure all participants that forage and mulch certified through this program meet a minimum acceptable standard;
- Provide consistency between states;
- Limit the spread of noxious weeds.

Weed-free forage is required on many U.S. Forest Service and Bureau of Land Management lands, in national parks, military locations, tribal lands, and National Fish and Wildlife refuges. Certifiable forage products include straw, alfalfa hay, grass hay, grain hay, and forage pellets and cubes. Recreational horse riders using federal property may need weed-free forage to feed their horses, and state and federal agencies may require weed-free mulch for right-of-way projects. Also, weed-free forage may be required on state and federal land when mulch is needed on seeded areas following forest fires.

The Kansas Department of Agriculture signed a memorandum of understanding with NAWMA to follow the standards set forth in the North American Weed Free Forage Program. Kansas Department of Agriculture staff also are qualified to certify forage and mulch products to meet any additional requirements set forth by any receiving entity, and we are the only recognized certifying authority in Kansas.

When is certification necessary?

Certification to the North American Weed Free Forage Standard is necessary only when the end user or purchaser requires certification. Currently, all forage or mulch brought onto federal property must be certified to this standard. Many state departments of transportation require mulch to be certified to this standard. Some receiving entities even have standards more stringent than those set out by the North American Weed Management Association.

Does this mean no weeds can be present?

The 54 species identified as noxious weeds by the participating states are a concern, and then only if they have, or will have, viable seed present when the crop is harvested. Portions of a field may be certified if the weeds are in patches. Also, weeds can be treated and the field reinspected. Some receiving entities may have more stringent standards, and they can carry out their inspection and certification to meet their requirements.

When do I need to have my field inspected?

Within 10 days before harvest. When wheat straw is the certified product, the inspection must be done within 10 days before harvest and the straw must be baled during the same 10-day period.

Does certification mean there is a guarantee that no noxious weed seed is present?

No. The inspector certifies that he or she followed required procedures and that the field has passed a reasonable, prudent visual inspection.

Is certified forage the highest quality forage?

No. Quality and nutritive value are not a factor when certifying the product. However, if we find excessive weeds of any species, or poisonous weeds, the field may not be certified.

What do I need to do to have forage certified weed-free?

Contact: Kansas Department of Agriculture Plant Protection and Weed Control, Attention: William T. Scott, (785) 862-2180. http://www.ksda.gov/plant_protection for an application for a weed-free forage inspection. Complete the application and return it as early in the season as possible.

A qualified inspector will contact you to schedule a time for the inspection. Afterward, you will be given an inspection report.

When the field is harvested, you need to return a copy of the report identifying the number of bales harvested on the certified site.

If you plan to ship or sell small lots, you may want to tag each bale.

If you are selling large lots, you may need only one certification for each load.

Always ask the purchaser if bale tags are required.

An inspection costs $30 an hour plus travel for each inspector. Bale tags are $0.15 and state certificates are $20.

Which weeds are inspectors looking for?

Inspectors will look for as many as 54 weed species, and more if the receiving entity requires it. The 54 weeds are:

Absinth wormwood, Artemisia absinthium, Perennial sorghum, Sorghum almum, Bermudagrass, Cynodon dactylon, Perennial sowthistle, Sonchus arvensis, Buffalobur, Solanum rostratum, Plumeless thistle, Carduus acanthoides, Canada thistle, Cirsium arvense, Poison hemlock, Conium maculatum, Common burdock, Arctium minus, Puncturevine, Tribulus terrestris, Common crupina, Crupina vulgaris, Purple loosestrife, Lythrum salicaria, Common tansy, Tanacetum vulgare, Quackgrass, Agropyron repens, Dalmation toadflax, Linaria dalmatica, Rush skeletonweed, Chondrilla juncea, Diffuse knapweed, Centaurea diffusa, Russian knapweed, Centaurea repens, Dyers woad, Isatis tinctoria, Scentless chamomile, Anthemis arvensis, Field bindweed, Convolvulus arvensis, Scotch broom, Cytisus scoparius, Hemp, Cannabis sativa, Scotch thistle, Onopordum acanthium, Henbane, Black, Hyoscyamus niger, Sericea lespedeza, Lespedeza cuneata, Hoary cress, Cardaria spp., Silverleaf nightshade, Solanum elaeagnifolium, Horsenettle, Solanum carolinense, Skeletonleaf bursage, Ambrosia tomentosa, Houndstongue, Cynoglossum officinale, Spotted knapweed, Centaurea maculosa, Johnsongrass, Sorg-hum halepense, Squarrose knapweed, Centraurea vigata, Jointed goatgrass, Aegilops cylindrica, St. Johnswort, Hypericum perforatum, Leafy spurge, Euphorbia esula, Sulfur cinquefoil, Potentilla recta, Matgrass, Nardus stricta, Syrian beancaper, Zygophyllum fabago, Meadow knapweed, Centaurea pratensis, Tansy ragwort, Senecio jacobaea, Medusahead, Taeniatherum caput-medusae, Toothed spurge, Euphorbia dentata, Milium, Milium vernale, Wild oats, Avena fatua, Musk thistle, Carduus nutans, Wild proso millet, Panicum miliaceum, Orange hawkweed, Hieracium aurantiacum, Yellow hawkweed, Hieracium pratense, Oxeye daisy, Chrysanthemum leucanthemum, Yellow starthistle, Centaurea solstitialis, Perennial pepperweed, Lepidium latifolium, Yellow toadflax, Linaria vulgaris.

Control and prevention of hay fires

By John Slocombe
Professor, Ag Machinery;
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Spontaneous combustion hay fires cost farmers thousands of dollars in lost or damaged feed supplies, buildings, and income every year. Typically, these fires, which are preventable, occur within six weeks after baling. The fires can occur in hay stored inside as well as outside.

What Causes Hay Fires?

Regardless of when or where the fire occurs, the most common cause is excessive moisture. Heating caused by plant cell respiration (the burning of plant sugars to produce energy) in hay bales is normal and generally of little consequence. Heating occurs to some extent in all forage material unless it contains less than 15 percent moisture. However, if bale moisture levels are too high (greater than 20 percent), the heat and moisture create a suitable environment for the growth and multiplication of mesophilic (warm temperature) bacteria that are present on forage crops. Respirating mesophilic bacteria release heat in the bale, creating interior bale temperatures that can reach 130° to 140° F. Within this temperature range, most mesophilic bacteria die and interior bale temperatures start to decline.

Microbial action occurs because freshly cut forage is not dead. Respiration continues in plant cells after cutting, releasing a small amount of heat in the bale. Many producers refer to this elevation in bale temperature as "sweating" or "going through a heat." In hay that is baled at the proper moisture concentration, plant cell respiration has slowed dramatically and will eventually stop on its own.

The potential for fire occurs when the interior bale temperature does not cool after the first heating cycle. Temperatures rise when the heat created by mesophilic bacteria makes an environment favorable for the growth and multiplication of thermophilic (heat loving) bacteria. The thermophilic organisms multiply and produce heat that can raise the interior bale temperature to 170° F before microbial activity ceases.

This cycle of heating and cooling may occur several times during the weeks after baling as the microbial population increases and decreases. However, the maximum temperature decreases during each subsequent cycle and the interior bale temperature eventually stabilizes near the ambient temperature. Hay that experiences these heat cycles loses much of its quality as a feed source, but is unlikely to catch fire. In some cases, cows may actually prefer the taste of the brown, heat-damaged hay but the nutritional value has decreased considerably.

Reducing the Risk of Hay Fires

Hay moisture concentration is a major factor in the microbial activity that leads to hay fires. Therefore, hay should be cured to the proper moisture concentration before baling. Moisture levels for safe storage of hay vary with size and density of bale and type of hay. In general, hay in small rectangular bales should be baled at less than 22 percent moisture to keep molding and heating to a minimum. Large rectangular and large round bales retain internal heat much longer than conventional bales. Therefore, hay should be less than 18 percent moisture before baling in large bales. If you are storing or sheltering some of your big bales, this long-term heat retention affects the proper time to move big bales into storage. Hay baled with more than 22 percent moisture should probably not be put into storage for at least 30 days. This is especially true if bales are to be stacked several layers deep. With the threat of barn fires removed by outside hay storage, many operators of large round balers try to bale hay with too much moisture. But excessive heating and molding can cause the loss of as much as one-third of the feeding value of hay baled at 28 percent moisture.

Carefully monitor the weather forecasts before scheduling hay baling operations. Weather conditions during hay curing have the greatest influence on achieving proper moisture concentration. Ideal hay-curing weather is slightly windy with a relative humidity of 50 percent or less. Hay should not be baled in the early morning because its moisture concentration increases overnight when the air tends to be more humid.

Specialized hay equipment can help reduce moisture concentration by increasing crop drying rates, especially during good hay-curing weather. Conditioning equipment crimps or roughens crop stems to break up the waxy outer layer surrounding the stem. Crimping allows plant moisture to evaporate and speeds the drying process. Tedders fluff, spread, or move windrows to improve air movement through the

crop. Windrow turning equipment lifts, inverts, and fluffs windrows, allowing the bottom side of the windrow to be exposed to the sun, which speeds drying during good hay-curing weather.

Hay preservatives can cut the risk of hay fires by reducing the growth of bacteria in moist hay. Propionic acid is a liquid that is applied to hay during baling and is the most effective preservative available. However, a tank and a spray application system must be added to the baler to hold and dispense the preservative. Furthermore, spray nozzles must be spaced to distribute the chemical over all the forage as it enters the baling chamber.

The amount of propionic acid needed depends on the hay moisture concentration. Small bales with a moisture concentration between 20 and 25 percent should be treated with about 0.5 percent propionic acid on an as-baled basis. The application rate should be increased to 1 percent for hay with a moisture concentration between 25 and 30 percent. Propionic acid and other hay preservatives may not work for hay with a moisture concentration greater than 30 percent. The main disadvantages of using propionic acid are its corrosiveness and the cost of application equipment. The estimated cost of adding spraying equipment to a baler is $1,000 to $1,500.

Hay that is baled at the proper moisture concentration can become a potential fire hazard if it becomes wet during storage. Hay barns should be weather-tight with adequate drainage so water will not enter the barn and damage hay during storms. Hay that is stored uncovered outside should be formed into the tightest packages possible to resist penetration by rain. Do not place unprotected bales or stacks tightly against each other. Instead, arrange uncovered bales so air can freely circulate around them to promote drying. Protect bales from ground moisture and runoff by placing them on a bed of gravel, old tires, poles, or pallets. Plastic or other waterproof covers will protect bales by shedding precipitation.

Monitoring Temperatures During Storage

The temperature of hay that has been baled at a high moisture concentration should be checked twice a day for six weeks after baling. Use a probe and thermometer to accurately determine the temperature inside a stack of hay. A simple temperature probe can be made in the farm shop from a 10-foot piece of ¾-inch diameter iron pipe. Drill eight 3/16-inch diameter holes about three inches from one end then hammer that end of the pipe together to form a sharp edge. Commercial temperature probes are available, but are often too short to monitor the maximum interior temperature zone within a haystack.

Check hay temperature in the center of the stacked hay bales. The easiest way to do this is from the top of the stack. Do not walk directly on the stacked hay because pockets may have already burned out under the hay surface. Place boards, plywood, or a ladder on the hay to walk on. This will spread the weight of the person monitoring the temperature over a larger area and prevent falling into burned- out cavities. Work in teams of at least two people and attach a lifeline to the person checking hay temperature just in case the surface collapses. The second person, standing safely away from the hay, should hold the other end of the lifeline (usually a heavy rope) to pull out the person monitoring the temperature in the event of a collapse.

Drive the probe from the top of the haystack to the innermost bales. Lower a thermometer to the end of the probe with a piece of light wire. After 10 to 15 minutes, retrieve the thermometer and read the temperature. If the temperature has reached 150° F, it is likely to continue to increase and bales should be moved to create more air circulation and cooling. Continue monitoring the temperature every two or three hours.

Hay Fires

In the event of a hay fire, surveying the fire scene is the most important step to ensure everyone's safety. Scan the area surrounding the hay fire. If flammable products (e.g. gasoline, fertilizers, and pesticides) are located nearby, evacuate the area immediately and wait for firefighters to arrive. Do not attempt to remove the flammable products.

If there are no flammable products in the area and time permits, there are steps you can take before the fire department arrives.

• For hay stored outside, create a firebreak around the stacked hay by disking a 15-foot wide perimeter around the stack. If water and a high-pressure hose are available, water the hay and the surrounding vegetation to keep the fire from spreading.

• For hay stored inside a building, if the area is safe and time permits, evacuate all livestock from the building. Relocate animals to an area that is a safe distance from the structure. Turn off the building's electricity to prevent an electrical fire. Monitor wind direction carefully. If water and a high-pressure hose are available, water the roof of adjacent structures that are downwind of the fire.

Damaged Hay

Hay that has been damaged by heat, smoke, or water should be removed to a safe location. Use damaged hay as mulch for erosion control on slopes or in gullies. If you are uncertain whether heat-damaged hay is suitable for feeding, have a sample tested.

Publication modified with permission from Hay Fire Prevention and Control, Virginia Cooperative Extension Service, publication 442-105, 2003, Gay, Susan W., Grisso, Robert "Bobby", Smith, Ray, and Swisher, Jerry M., Jr.

Practice safety when working with large round bales

By John Slocombe
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Knowledge of potential hazards and faithfully following standard safety practices are the keys to safe and efficient production of large round bales. Safe hay production requires constant attention to situations that may cause injuries. Farm accidents contribute to higher costs from increased, unnecessary down time, machinery repair, personal pain, and often medical bills. Being alert and safety consciousness can result in more efficient and profitable baling and handling.

Making large round bales requires working with a baler and bale handling equipment. Begin safety awareness by reviewing the operator's manual for each piece of equipment used. Become reacquainted with the machines at the beginning of each season. Insist that each operator be trained and familiar with all safety precautions in the manual. This includes youth, whose training should be monitored and regularly reinforced.

Handling Bales on Hillsides

Operating large round balers on a slope is a greater concern than almost any other machinery operation. Bales on a slope have the potential to roll down the hill, break through fences and cross roads, leading to bodily harm and potential property damage. Always orient the bale correctly before ejecting the bale from the bale chamber. Sometimes this just means backing the baler at the right angle to eject the bale perpendicular to the slope so it will come to rest securely on the hillside. Steep slopes may require that the bale be taken to a flat location before ejection.

Handling Large Round Bales

Small square bales, weighing 35 to 85 pounds, are traditionally handled and stacked manually or with a bale loader. Large round bales usually weigh between 500 and 2,500 pounds and must be handled mechanically. Because of their weight, large round bales can cause significant injury if they roll into or fall on a person.

Sometimes farmers use hauling equipment designed for small square bales to handle these larger packages (usually with minor modifications). When done improperly, this can lead to injury or death from overturning or crushing.

Front-End Loaders

Many farmers use front-end loaders to move and stack large round bales. Use caution when hauling large round bales or any heavy load on a front-end loader to avoid side overturns or being crushed from a bale rolling down upon the tractor. It is extremely important that the size of the tractor and loader be matched properly to the size and weight of the bales being handled.

Side overturns can occur when the tractor's center of gravity changes due to the additional weight of the bale.

Some operators will carry the load high for improved visibility while driving. In the raised position, the tractor is less stable and the potential for side overturn increases.

Now visualize a tractor on a slope with two wheels on the downhill side and two wheels on uphill side. As the bale is lifted, the center of gravity gets higher and the potential for the tractor to roll down the hill increases. The chance of side overturns increases when carrying a load on the front-end loader, especially on slightly rough ground. Moving the center of gravity forward causes a transfer of weight from the rear wheels to the front, making it much easier to bounce a rear tire off the ground when driving over bumps or holes. The additional weight on the front tires may also exceed the axle and tire load-carrying capacity.

A loss of traction occurs when weight is transferred from the rear tires to the front tires during bale handling. This can be a problem when moving bales up a slope or on wet soil. Loss of traction by the rear tires can result in a braking loss on all surfaces. Weight should be added to the rear of the tractor to counterbalance the load on a mounted front-end loader. This additional weight will bring the center of gravity back to the original center.

Another dangerous situation occurs when the loader is raised too high. The bale can roll down the loader arms crushing the operator. Use proper bale handling devices when moving large round bales with a front-end loader. Keep the load as low as possible and move slowly. Loader attachments such as spears and grapple-forks minimize the risk of the bales rolling down the loader lift-arms and injuring the operator.

When using a front-end loader to load round bales on a trailer, park the trailer perpendicular to the slope and load from the uphill or downhill side. Never try to place a second layer of bales on a trailer that is parked parallel to the slope because the tractor must travel across the slope, increasing the potential for overturn.

Bale Handling Devices

A number of large bale handling devices are avail-

able commercially. Two examples are three-point hitch spears that are pushed through the bale and fingers that grasp the edges of the bale. When using bale handling equipment, know where the center of gravity is, especially if the load extends far to the rear of the tractor. This can overload the tractor hydraulic system; the relief valve will open but the lifting actuators will not come up.

It is safer to handle bales with rear attachments rather than with the front-end loader. Rear tires are better suited to carry the extra weight, and there is less chance of a side overturn because the bale is not lifted as high.

Avoid lifting bales with a rear-mounted 3-point lift to a height where the front tractor wheels are barely in contact with the ground. At least 30 percent of the front weight of the tractor should remain on the front wheels. Inadequate weight on the front tires can cause stability and steering problems.

With rear-mounted bale handlers there is some increased possibility for rear overturns. However, the bale or carrying attachment may help prevent the tractor from a complete overturn. Some operators use both a rear-mounted handler and front-end loaders. This can reduce the stability problems, but be sure the bale loads do not exceed the tire-carrying capacity of either the front or rear tires.

If possible, try to operate bale handling devices on relatively level ground. When picking up a bale with a front-end loader on an incline, drive up the slope to spear the bale. Care must be exercised when driving across the slope to pick up a bale. To ensure bales are in a safe location for pick up, it may be necessary for the person baling to transport bales in the baler to a safer location before ejection.

Transport

Special low clearance trailers that load bales directly from the ground and carry 4 to 16 bales are the preferred method for moving bales because they reduce or eliminate problems of potential overturn and overloading a tractor's hydraulic system. They also transport multiple bales at a time.

Since these trailers are capable of carrying so many bales, there can be a problem stopping the load. At 1,500 pounds per bale, load size may exceed 16 tons. Add the weight of the trailer and the total transport weight can exceed 18 tons. The towing tractor must be the proper size and weight to safely stop the bale and trailer weight.

Use a lower gear when going downhill, since the tractor brakes alone may not be able to stop the load. Use low gear going uphill too. Do not attempt to change gears during descent, begin descent in a low gear.

Install brakes on transport trailers carrying heavy loads to make stopping easier and safer. Never operate a hay trailer on the highway that is not equipped with brakes. Trailers can be equipped with electric, hydraulic, or surge brakes. Most models can be equipped with a breakaway device that will lock the brakes if the trailer breaks loose from the towing vehicle.

Keep people out of the area between the trailer and tractor during hitching. Use pre-determined hand signals to communicate with those assisting. Hitch the trailer only to the drawbar; never to any other point on the tractor. Set the tractor drawbar to the lowest, most centered and stationary position. This will keep the tractor's front wheels moving straight and provide extra steering control. Use a safety locking hitch-pin and secure the trailer with chains.

Properly inflate trailer tires before transporting round bales on the highway. A slow-moving vehicle (SMV) emblem should be clean and visible. Replace worn or faded emblems. Remember, farm vehicles are subject to all traffic laws. If a trailer moves large round bales, the bales should be secured with a strap that has tensile strength greater than 1.5 times the load it is holding. If the transport has large round bales stacked side by side, it probably qualifies as a wide load and may be illegal on interstate highways. On local or state roads, wide loads must follow all traffic laws. Check with state and local police for additional requirements.

Do not allow bales to rest against trailer tires. At transport speeds, the friction of the hay against the rotating tire can generate enough heat to ignite the hay. Remember that trailers pulled by a pickup have faster transport speeds than tractors and heat sufficient to cause a fire can occur in a short distance (½ mile). Trailer fires are difficult to control and can lead to loss of hay, trailer, and transport vehicle.

While driving on the highway with any vehicle, assure that the driver can see and be seen. Use flashing lights and have an SMV emblem properly mounted. Allow time to pull into and across traffic. Avoid sudden, erratic, or unexpected maneuvers. Keep to the right, pull over at a safe place to let traffic pass. Never wave vehicles to pass; let drivers pass at their own discretion. Signal all turns well in advance and make sure no one is passing when turning left. Pull completely off the road if something goes wrong. Do not transport wide loads after daylight hours, in poor visibility, or bad weather.

Awareness

Fatigue can be an operator's most serious physical obstacle. Long workdays and the pressure associated with baling and forage harvesting can be tiring. Fatigue slows reaction time, impairs judgment and memory, and may even cause hallucinations. Safety breaks, which include stretching, breathing deeply, and periodically walking around, can help prevent the effects of fatigue or boredom. When drowsiness sets in, stop and have a cup of coffee, water, or soda. If fatigue persists, discontinue operations that need full attention and get rest.

Large round baling is a good method for harvesting, storing, and moving hay crops but keep safety in mind. Safety, in the final analysis, is largely a matter of common sense and patience. Most manufacturers have designed and built equipment with operator safety in mind. The ultimate responsibility for its safe and proper operation lies with the operator.

Forage quality: the importance of testing

Testing forage accurately can provide a good estimation of forage quality. Test results can be used for: marketing and pricing forages; evaluating, growing, cutting, and storage; formulating nutritionally balanced rations; and developing and allocating forage inventories.

Recommended tests for determining forage quality include:

1. Dry Matter (DM)
2. Crude Protein (CP)
3. Acid Detergent Fiber (ADF)
4. Neutral Detergent Fiber (NDF)
5. Calcium (Ca)
6. Phosphorus (P)

Feed values (Total Digestable Nutrients-TDN, Relative Feed Value-RFV, and Relative Forage Quality-RFQ) can be calculated from these core analyses.

In general, samples should be submitted to the laboratory in the following manner:

Use a good probe

The hay probe should have an internal diameter of 3/8 to 5/8 inch. The cutting edge should be at right angles to the shaft, and kept sharp. Dull probes will not obtain a representative sample. Core samplers that cut through a cross section of a bale provide the best representation of stems and leaves. Avoid using open augers as they selectively sample leaves.

Sample at random

It is important to select bales at random from throughout the hay "lot." A lot is defined as forage taken from the same farm, field, and cut under uniform conditions within a 48-hour time period. A lot can represent several truck or wagon loads, but all the forage should have been harvested and stored under identical conditions. For accurate test results, hay or silage should be stored by lots, and separate samples taken from each lot. Any special conditions that result in quality differences in a lot, such as rain damage during harvest or excessive weed populations, should be noted to allow later assessment of the reasons for quality variations. Avoiding some bales and choosing others based on appearance will bias the sample. For stacked hay, samples should be taken from bales at various heights in the stack.

Take enough core subsamples

Taking at least 20 core samples from a hay lot minimizes sample variation.

Use the proper technique

For rectangular bales of all sizes, insert the hay probe 12 to 18 inches deep at a right angle into the center of the ends of bales. For round bales, the probe should be inserted at right angles to the outside circumference of the bales.

Handle samples correctly

Combine core samples from a given lot into a single sample and store in a sealed plastic freezer bag. Samples should be protected from heat or direct sun, and promptly sent to a laboratory for analyses. The sample should weigh approximately 1/2 to 3/4 pound. With larger samples, many labs will not grind the entire sample. Too small a sample will not adequately represent the hay lot.

Split samples correctly

To test the performance of a particular laboratory (or the sampling technique), a fully ground and thoroughly mixed sample should be split and submitted. Unground samples should not be split.

Kansas Hay Market Report

Hay trade moderate. Demand strong for dairy and grinding alfalfa, moderate to strong for stock cow hay and alfalfa pellets, moderate for grass hay. A week of cooler temperatures and light amounts of precipitation have slowed the growth of the alfalfa. Warmer temperatures are forecast for the weekend. Drought conditions continue to worsen over the Southern States, Kansas ranges from abnormally dry to severe drought. Texas, Oklahoma, Arkansas, Louisiana and eastern Colorado are all suffering from moderate to extreme drought. If you have hay for sale or pasture to rent or need hay or grazing, use the services of the Hay and Pasture Exchange www.kfb.org/hayandpasture default.htm

Southwest Kansas

Dairy and grinding alfalfa steady to firm. Movement moderate to active. Alfalfa, Horse, small squares, 220.00; Dairy, 90 cents-1.00/point RFV, Supreme 160.00-180.00, an instance 185.00; Premium 140.00-165.00, a little New Crop contracted 105.00 to mostly 110.00 standing in the field; Bunk hay 135.00-150.00; Utility-Fair grinding alfalfa at the edge of the field, 115.00-130.00. Ground and delivered locally to feedlots and dairies 140.00-155.00, a little Ground-on-the-truck 145.00. The week of 3/21-26 11,495T grinding alfalfa and 3,050T of dairy alfalfa were delivered. BMR Sudan, Good large bales 65.00-75.00. PM6 grass, Good, small squares 175.00-210.00, large round 110.00. Teff grass, Good small squares 200.00. Straw, large bales 45.00-55.00, some 60.00 delivered. Cornstalks 40.00-45.00, instances 50.00-55.00.

South Central Kansas

Dairy alfalfa steady, grinding alfalfa steady to 5.00 higher, alfalfa pellets steady to 10.00 higher. Movement moderate to active. Alfalfa, Dairy, 80 cents-1.00/point RFV, Supreme, 150.00-170.00; Premium 130.00-150.00; Good 110.00-130.00; Utility-Fair grinding alfalfa at the edge of the field 95.00-115.00. Ground and delivered locally to feedlots 120.00-135.00. The week of 3/21-19, 4,216T of grinding alfalfa and 1,545T of dairy alfalfa were delivered. Alfalfa pellets: Sun Cured 15 pct protein 160.00-175.00; Sun Cured 17 pct 170.00-180.00; Dehydrated 17 pct 190.00-200.00. Straw, large bales 45.00-55.00. CRP grass, large bales 40.00-55.00. Sudan, large bales 60.00-70.00. Cornstalks, large bales 37.00-50.00.

Southeast Kansas

Alfalfa, brome and prairie hay steady. Movement moderate. Alfalfa: Horse and goat, mid

square 180.00-200.00. Stock Cow and sheep, mid squares Good 110.00-140.00; Bluestem: Good, small squares 90.00-100.00, mostly 90.00-95.00, mid and large squares 65.00-85.00, mostly 75.00-80.00, large rounds 50.00-70.00. Mulch, large rounds 50.00. Brome: Good, Small squares 100.00-110.00 mid and large squares 80.00-100.00, large rounds 50.00-70.00.

Northwest Kansas

Dairy and grinding alfalfa steady. Movement slow to moderate. Alfalfa: Dairy, Premium 125.00. Good, Stock cow 100.00. Utility-Fair grinding alfalfa at the edge of the field 80.00-100.00, instances 110.00; Ground and delivered to feedlots and dairies 115.00-130.00, most trade near the upper end of the range. BMR Sudan, Good, large round bales 60.00-65.00.

North Central-Northeast Kansas

Dairy and grinding alfalfa, prairie hay and brome steady. Movement slow to moderate. Alfalfa: Horse, 180.00-200.00; Dairy, Supreme, 135.00-160.00, some 170.00 delivered; Premium 120.00-140.00; Utility-Fair grinding alfalfa at the edge of the field, 70.00-90.00, mostly 75.00-80.00, alfalfa Ground-on-the-truck 95.00-105.00, Ground and delivered 105.00-120.00. Grass hay: Bluestem Good, small squares, 3.50-4.00/bale, 90.00-100.00, Mid squares 70.00-80.00, large rounds 25.00-30.00/bale, 45.00-65.00/T. Brome: Good, small squares, 4.50/bale, 90.00-120.00/T, Mid squares, 75.00-90.00, large round, 25.00-35.00/bale, 50.00-65.00/T, Fair 40.00-50.00/T. Grass Mulch, large round 50.00-60.00. Straw, small squares 2.50/bale, some 3.50 delivered, mid and large bales 50.00-60.00/T, some 65.00 delivered.

****Prices are dollars per ton and FOB unless otherwise noted. Dairy alfalfa prices are for mid and large squares unless otherwise noted. Horse hay is in small squares unless otherwise noted. Prices are from the most recent sales. *RFV calculated using the Wis/Minn formula. **TDN calculated using the Western formula. Quantitative factors are approximate, and many factors can affect feeding value. Values based on 100% dry matter (TDN showing both 100% & 90%). Guidelines are to be used with visual appearance and intent of sale (usage).*

Source: Kansas Dept of Ag-USDA Market News Service, Dodge City.

Steve Hessman, Rich Hruska, OIC (620) 227-8881 24 hour price information (620) 369-9311. www.ams.usda.gov/ mnreports/DC_GR310.txt The Kansas Hay Market Report is provided by the Kansas Department of Agriculture with technical oversight from the USDA Agricultural Marketing Service.

EZMT Portable livestock feeder offers easy cleaning and versatility

All other portable feeders need to be scooped out or flipped upside down to clean out the uneaten feed. Scooping them out is not an easy task and flipping them over is very hazardous to the stockman and the equipment.

The EZMT feeder solves this problem, very simply, by using hydraulics to belly dump the uneaten material while moving the feeder to either a new area or to the hay or silage pile for refill.

Most other portable feeders also are too wide for weaned calves to reach the feed in the center of the feeder leaving an 18–24 inch mound the full length of the feeder. The EZMT very simply adjusts from 7' to 6' wide so calves can easily reach all the feed.

The other solid bottom feeders that are unused in the off season have water and uneaten feed standing in the feed pan all summer/fall. This causes the feed pans to rust out in a few short years. The EZMT can be put in dumping position for summer/fall storage and will clean itself out, keeping it rust free and lasting many years longer than other portable feeders.

EZMT also has all removable spindles. On most other feeders, spindles are welded in place.

The EZMT also comes with removable end panels used to help contain ground hay and silage. These panels are easily removed to feed big bales, giving easy access to the bales from the ends. With the end panels removed the feeder will hold three large bales and with 33 feed openings can handle 45-50 cows.

KSU offers projected pasture rental rates for summer 2011

By Kevin C. Dhuyvetter, KSU Department of Agricultural Economics

It's that time of year when livestock producers and landowners look to warming weather and grass turning green and thus the need to negotiate pasture rental rates for the upcoming grazing season. Often the starting point in negotiations is what was charged last year and then a determination is made as to whether or not that value should be changed for the current year. A valuable source of information historically available to look at the previous year were the average rental rates reported in the annual Bluestem Pasture Release published by the Kansas Department of Agriculture Statistics Division (Kansas Ag Statistics) (historical reports are available at www.nass.usda.gov/Statistics_by_State/Kansas/Publications/Economics_and_Misc/Bluestem/).

This survey collected data on rental rates in the Flint Hills of Kansas for various types of cattle and-stocking programs (i.e., different weights of stocker cattle for both season long and early intensive and spring- and fall-calving cow herds). Unfortunately, due to budget constraints, that survey was not conducted in 2010 nor will it be conducted in 2011 and thus producers and landowners who have relied upon that information in the past will need to find an alternative source of information.

Many factors impact the rental rate for any particular tract of land (e.g., forage quality, stocking rate, size of pasture, quality of fence, water availability, landowner/tenant relationship); however, an examination of historical data indicates there are three factors that explain much of the variability in average rental rates over time. First, rates trend up over time and thus are expected to increase from year to year, all else equal. Second, rates are positively related to cattle prices, i.e., rental rates tend to increase more when cattle prices are high compared to when cattle prices are low. Third, rental rates are positively related to corn prices, suggesting that producers are willing to pay more to rent grass when feed prices are high. These relationships have been quantified and embedded in a decision tool that allows producers and landowners to predict average rental rates, given assumptions about these three factors (i.e., year, feeder cattle price, and corn price) (see Determining Pasture Rents in the Kansas Flint Hills and corresponding decision tool available on www.AgManager.info — direct link www. agmanager.info/farmmgt/land/lease/.

Tables 1-3 below report model-estimated pasture rental rates for 2011 given feeder cattle and corn prices for the first three weeks of January, which are both significantly above long-term averages. As stated above, absolute values of rental rates can (and should) vary considerably for many reasons. Thus, what is relevant in tables 1-3 is not the absolute rates (i.e., $/head or $/ac), but rather the change from last year. That is, producers and landowners should look at how rates are expected to change and apply that to rates from last year (assuming the base rate last year was appropriate). While the results vary depending on cattle type and grazing program, they generally suggest an increase in rental rates of 6-10% from last year's rates. The average percentage change for the previous 30 years has averaged roughly 1.5 to 2%, thus this suggests pasture rates in 2011 are expected to increase more than average due to the high cattle and corn prices. It is important for landowners to recognize that while the current economic conditions (i.e., high cattle and corn prices) reflect conditions that suggest pasture rental rates likely will increase more than average, rates also may need to decrease if and when conditions go the other direction. For example, if cattle and/or feed prices change significantly in the next 30-60 days, producers and landowners may want to "plug" those values into the model to see how that impacts projected rental rates.

2011 rates are forecasts based on average feeder cattle and corn futures prices from 1/3/2011-1/25/2011.

Table 1. Bluestem Pasture AVERAGE Lease Rates and Acreage Guarantees -- Full Summer Season (~ 6 months)

	Steers and Heifers -- Under 500 lbs			Steers and Heifers -- 500 - 699 lbs			Steers and Heifers -- 700 lbs or More			Average	Percent Change		
Year*	Dollars	Acres	$/acre	Dollars	Acres	$/acre	Dollars	Acres	$/acre	$/acre	< 500 lbs	500-699	> 700 lbs
2005	$63.35	3.9	$16.24	$66.95	4.2	$16.13	$80.60	5.2	$15.50	$15.96	8.3%	1.3%	6.3%
2006	$68.20	4.0	$17.05	$67.80	4.2	$16.14	$85.40	5.3	$16.11	$16.44	7.7%	1.3%	6.0%
2007	$59.20	3.7	$16.00	$67.20	4.4	$15.27	$77.40	4.4	$17.59	$16.29	-13.2%	-0.9%	-9.4%
2008	$67.60	3.6	$18.78	$73.20	3.8	$19.26	$89.60	4.8	$18.67	$18.90	14.2%	8.9%	15.8%
2009	$65.10	4.3	$15.14	$70.90	3.9	$18.18	$83.80	5.2	$16.12	$16.48	-3.7%	-3.1%	-6.5%
2010	$68.20	3.8	$17.89	$73.11	3.9	$18.71	$88.14	4.8	$18.25	$18.29	4.8%	3.1%	5.2%
2011	$69.46	3.8	$18.23	$77.40	3.9	$19.91	$93.31	4.8	$19.36	$19.17	1.8%	5.9%	5.9%

* No survey was conducted in 2005. 2010 and 2011 values are from a regression-based prediction where rate is a function of feeder cattle and corn futures prices and year.
2011 rates are forecasts based on average feeder cattle and corn futures prices from 1/3/2011 - 1/25/2011.

Table 2. Bluestem Pasture AVERAGE Lease Rates and Acreage Guarantees -- Full Summer Season (~ 6 months)

	Cow/calf pairs -- Fall calves			Cow/calf pairs -- Spring calves			Cow/calf pairs -- Average			Percent Change		
Year*	Dollars	Acres	$/acre	Dollars	Acres	$/acre	Dollars	Acres	$/acre	Fall	Spring	Avg
2005	$116.25	7.6	$15.40	$114.05	7.6	$15.11	$114.70	7.7	$14.99	3.9%	4.4%	4.3%
2006	$120.60	7.9	$15.27	$118.90	7.9	$15.05	$119.40	7.9	$15.11	3.7%	4.3%	4.1%
2007	$125.50	8.0	$15.69	$125.80	8.0	$15.73	$125.70	8.0	$15.71	4.1%	5.8%	5.3%
2008	$132.10	8.0	$16.51	$133.30	7.6	$17.54	$133.00	7.7	$17.27	5.3%	6.0%	5.8%
2009	$127.60	8.3	$15.37	$131.10	7.4	$17.72	$130.10	7.6	$17.12	-3.4%	-1.7%	-2.2%
2010	$131.24	7.8	$16.74	$131.27	7.6	$17.36	$131.01	7.7	$17.04	2.9%	0.1%	0.7%
2011	$144.31	7.8	$18.39	$141.13	7.6	$18.60	$143.43	7.7	$18.62	10.0%	7.5%	9.5%

* No survey was conducted in 2005. 2010 and 2011 values are from a regression-based prediction where rate is a function of feeder cattle and corn futures prices and year.
2011 rates are forecasts based on average feeder cattle and corn futures prices from 1/3/2011 - 1/25/2011.

Table 3. Bluestem Pasture AVERAGE Lease Rates and Acreage Guarantees -- Short Summer Season (~ 3 months)

	Steers and Heifers -- Under 500 lbs			Steers and Heifers -- 500 - 699 lbs			Steers and Heifers -- 700 lbs or More			Average	Percent Change		
Year*	Dollars	Acres	$/acre	Dollars	Acres	$/acre	Dollars	Acres	$/acre	$/acre	< 500 lbs	500-699	> 700 lbs
2005	$51.80	2.8	$18.84	$54.90	2.8	$19.61	$65.95	3.3	$19.98	$19.48	-1.5%	1.5%	5.7%
2006	$51.00	3.0	$17.00	$55.70	2.8	$19.89	$69.50	3.5	$19.86	$18.92	-1.5%	1.5%	5.4%
2007	$56.60	3.0	$18.87	$59.70	2.9	$20.59	$70.20	3.0	$23.40	$20.95	11.0%	7.2%	1.0%
2008	$61.40	2.8	$21.93	$61.60	2.7	$22.81	$72.10	3.5	$20.60	$21.78	8.5%	3.2%	2.7%
2009	$56.60	2.8	$20.21	$62.40	2.7	$23.11	$67.00	3.6	$18.61	$20.65	-7.8%	1.3%	-7.1%
2010	$58.93	2.7	$21.66	$64.28	2.8	$22.86	$72.32	3.2	$22.91	$22.48	4.1%	3.0%	7.9%
2011	$64.46	2.7	$23.61	$68.75	2.8	$24.35	$77.66	3.2	$24.65	$24.20	9.4%	6.9%	7.4%

* No survey was conducted in 2005. 2010 and 2011 values are from a regression-based prediction where rate is a function of feeder cattle and corn futures prices and year.
2011 rates are forecasts based on average feeder cattle and corn futures prices from 1/3/2011 - 1/25/2011.