

Remove Hay Bales From Right Of Way

PIERRE — The South Dakota Department of Transportation reminds land owners hay remaining in highway ditches after Oct. 1 is deemed illegal.

After Oct. 1, the department will remove or authorize the removal of any illegal hay bales remaining in the public right of way.

Any person wishing to claim ownership of illegal bales must obtain a permit from the South Dakota Department of Transportation. Those permits are issued on a first-come first-served basis and allow permit holders to take ownership of any illegal hay bale.

Permits are available at Department of Transportation area offices in the following communities: Aberdeen, Belle Fourche, Custer, Huron, Mitchell, Mobridge, Pierre, Rapid City, Sioux Falls, Watertown, Winner and Yankton. Phone numbers can be found on the website at <http://www.sd-dot.com/dot/region/Default.aspx>.

For more information, contact the Division of Operations at 605-773-3571.

SD Farm & Ranch Families Honored

HURON — More than 100 farm and ranch families who have owned their land for a century or more were honored at the 2015 South Dakota State Fair, receiving a Century Farm or Quasiquicentennial Farm award from the South Dakota Farm Bureau and the South Dakota Department of Agriculture.

This year, 67 families were honored with the Century award for 100 years of ownership and 44 were honored with the Quasiquicentennial award for 125 years of family ownership. More than 80 of the families were able to be in attendance for the awards ceremony, held at the fair on Sept. 3 on the Farm Bureau Dakotaland Stage. Each family had the opportunity to say a few words about their farm or ranch as they were presented their award by Lucas Lentsch, South Dakota Secretary of Agriculture, and Scott VanderWal, president of the South Dakota Farm Bureau.

“Agriculture might appear much different today than it did a century or 125 years ago, but the heart of agriculture has not changed—farmers and ranchers who are proud to care for the land and the livestock, their families and communities. South Dakota is built on the hard work, faith, and perseverance of these farm and ranch families. On behalf of Farm Bureau, I offer our congratulations to each and every one of these deserving people,” VanderWal commented.

Secretary Lentsch added, “It is a true honor to meet all of these families who’ve been able to keep farms in their family for 100 years, 125 years or even longer, and to hear their stories. These families are the backbone of agriculture in South Dakota. It’s a privilege to serve them and all of South Dakota’s farm and ranch families.”

Since the program began in 1984, South Dakota Farm Bureau and the South Dakota Department of Agriculture have honored more than 2,880 farm and ranch families with these awards. To be recognized, at least 80 acres of the original land must have been continuously owned by the same family, and they must be able to provide proof of the original date of purchase.

More details about the program can be seen on Farm Bureau’s website <http://www.sdfbf.org/public/347/all-about-ag/agriculture-101>. Photos of each of the families can be seen at <https://www.flickr.com/photos/sdfarmbureau>.

To see a map of the Century Farm recipients, go to <http://sdda.sd.gov/office-of-the-secretary/century-farms/>.

For a map of the Quasiquicentennial Farms, go to <http://sdda.sd.gov/office-of-the-secretary/century-farms/>.

Changes In Antibiotic Use By Pork Producers Loom

BROOKINGS — A new U.S. Food and Drug Administration (FDA) ruling goes into effect Oct. 1, 2015, which contains several important changes for pork producers.

“Traditionally, pork producers have used antibiotics for three purposes: treatment of illnesses, control or prevention of diseases and to improve nutritional efficiency. However, due to the concern about antibiotic-resistant bacteria, the FDA has issued a new ruling to ensure the continued responsible use of these products in food animals,” said Bob Thaler, Professor and SDSU Extension Swine Specialist, referencing FDA Guidance #213.

Implemented on Oct. 1, 2015, with a full implementation date of Dec. 31, 2016, guidance #213 will now require that a veterinarian write a Veterinary Feed Directive (VFD) or prescription for all antibiotics used in feed. “Like a human prescription, the VFD will specify the antibiotic used, the dosage approved, animals to be treated and how long the treatment is approved for,” Thaler said. “The FDA is working to make sure that the rules won’t place an undue burden on producers, veterinarians, and feed suppliers.”

In addition, Thaler explained that the guidance requires that the veterinarian writing the VFD must have a valid Veterinary-Client-Patient relationship with the producer, something that is the backbone of the National Pork Board’s Pork Quality Assurance program. “By having a strong working relationship between the veterinarian and producer, better treatment decisions can be made,” he said.

Under guidance #213, antibiotics can no longer be used to improve nutritional efficiency. “Once Guidance #213 is fully implemented in December 2016, it will be illegal to use medically important antibiotics for production purposes,” Thaler said. “Again, the VFD will only be written for the prevention, control, or treatment of specifically identified diseases.”

Thaler added that record keeping will increase under the new rules. The veterinarian writing the VFD, the feed mill or distributor receiving the VFD, and the producer receiving the medicated feed must all keep a copy of the VFD on file for two years.

“Guidance #213 and the new VFD rules will help ensure that medically important antibiotics will still be efficacious in human use, and that pork producers and veterinarians are working together to provide the very best medical care for their animals as possible,” he said.

DEVELOP A PLAN TODAY

Oct. 1 is less than a month away, Thaler urges producers to sit down with their veterinarians sooner than later in order to develop an antibiotic strategy for their individual operations.

“A strong veterinary-client-patient relationship is critical in moving forward successfully with the new antibiotic rules,” Thaler said.

To learn more, visit iGrow.org.

Not So Simple

Biochar, Once Seen As A Global Warming ‘Cure’ For Agriculture, Still Has Some Value

BY RITA BRHEL
P&D Correspondent

Back in 2009, biochar was all the rage. What is essentially charcoal renamed for its use as a soil amendment, biochar was purported by many at the time as a miracle cure for global warming.

The idea is that because charcoal has a high carbon content, if mixed into the soil, it is a possibility for carbon sequestration – which refers to the process of capturing and storing atmospheric carbon dioxide, one of and the most prevalent of the greenhouse gases released through burning of fossil fuels.

But like every complex problem, resolving global warming is not so simple.

“There are still a lot of uses of biochar, but it is not going to be the panacea we all hoped,” said Carl Bolster, research hydrologist with the U.S. Department of Agriculture’s Animal Research Service (ARS) in Bowling Green, Ky., during an August webinar hosted by the multi-institutional Extension’s Livestock, Poultry and Environmental Learning Center.

There continues to be an interest in biochar for use in carbon sequestration projects, but what research is showing to be perhaps the most useful for charcoal is in improving soil structure, including moisture and nutrient retention and the binding of heavy metals, unwanted pesticides and microbial pathogens.

“The interest in biochar is really increasing rapidly,” Bolster said. “There is a lot of potential.”

How much charcoal can help a crop depends on various factors, said Jeff Novak, soil scientist with the USDA’s ARS in Florence, S.C., during the same webinar — one of them being the actual what’s happening during the actual process of making biochar. The process is called pyrolysis and involves smoldering organic matter, such as wood or wood chips, manure, poultry litter and switchgrass.

In his research, Novak has found that not all biochars are created equal. Depending on the item used during pyrolysis, as well as components of the process itself, like temperature, some biochars are less effective than others at improving soil quality. For example, he found that pine woodchips are relatively void of soil nutrients, whereas biochars made from manures tend to higher fertilizer-equivalent nutrient ratios. Also, as the temperature during pyrolysis increases, the pH of the biochar can increase.

Even with fertility variables aside, charcoal’s binding ability can make it a worthwhile field application.

“Adding biochar has the potential to reduce groundwater contamination,” Bolster said. His research has centered on assessing biochar’s ability to prevent transport of microbial pathogens, including the potent E. coli outbreak that sickened spinach consumers across the nation in 2006.

“Animal manures are often applied to agricultural lands,” Bolster explained. “Animal manures may contain pathogenic microorganisms, and there is potential for pathogens to move from the soil to water, where they can cause symptoms ranging from gastrointestinal distress to death.”

He experimented with biochar from two sources, poultry litter versus pine woodchips, with both high- and low-temperature pyrolysis, and their effects on the movement of two different E. coli strains through both fully and partly water-saturated soil. What he found is that there is no straightforward answer: Pine wood chips restricted E. coli movement more than the poultry litter, but the high-temperature pyrolysis slowed E. coli movement more than the low-temperature process, regardless of charcoal



PHOTO: RITA BRHEL

source. Also, one strain of the E. coli moved easier with all of the experiment variables than the other.

The one positive area where the result didn’t matter with the source of charcoal, or the pyrolysis temperature, or the water saturation level, or the bacterial strain was that when there was less movement of E. coli, there was more E. coli retained in the soil.

Further study revealed that bacterial die-off was not a factor in reduced microbial movement, so biochar had a definite effect on E. coli transport – but how? This further study also showed that biochar wasn’t slowing E. coli movement by changing soil properties or by clogging soil pores and acting like a filter. And the effect wasn’t limited to E. coli, but Bolster also saw it with Salmonella and micro-spheres.

“In fact, what we’re seeing is the biochar affecting absorption by the soil,” Bolster said. So when biochar is used as a soil amendment, the bacteria had more difficulty entering the soil in the first place.

Exactly where the bacteria are going instead is not known for sure, but Bolster

has an idea: When he studied various biochars under the microscope, he discovered that there are different textures per type of charcoal. Biochar made from poultry litter appeared as a blob without much form otherwise, whereas biochar made from pine wood chips — which he had found restricted microbial movement more than poultry litter biochar — appeared as a set of honey comb-like tubes. Bolster’s theory is that the microorganisms become stuck in the structure of the pine wood chip biochar.

“There are a lot of things we don’t know about biochar,” concluded Dusty Moller, biomass utilization specialist with Washington State University’s Renewable Energy Program in Pullman, Wash., during the same webinar.

While much of what scientists and producers believe about biochar still relies on theory, research is beginning to reveal that biochar does have potential as a positive and effective place in crop production, Moller said, not only in improving soil properties but perhaps in carbon sequestration activities, too.

SDSU Extension

Biosecurity After The State Fair

BROOKINGS — During the South Dakota State Fair, thousands gathered in Huron to take in the various entertainment and competitive events. A significant amount of interaction between people and animals was also generated creating opportunities for livestock to potentially share germs or diseases with each other.

In order to protect the health and well-being of animals and people, there are some simple steps animal owners can do after returning home from the fair, explained Taylor Grussing, SDSU Extension Cow-Calf Field Specialist.

“Since the State Fair is commonly the last show of the season for several show animals, a common trend, once returning home, is to turn your show animal back out with the rest of your herd. However, because show animals were just exposed to several other animals from different operations with unknown health history, it is important to isolate show animals for approximately 30 days from any other animals that have not left the farm,” Grussing said.

ISOLATE ANIMALS

To properly isolate animals, Grussing said it

is recommended to keep animals returning home from the fair or other shows at a distance of 300 yards from other animals.

“There is no guarantee that your animals contracted any new diseases while exhibiting at the fair. However, by monitoring the animals for any signs of illness following the fair, you can hopefully avoid the introduc-

tion of new infectious agents into your herd,” she said.

If animals show any unusual health symptoms, contact your local veterinarian.

CLEAN EQUIPMENT


Another good management practice Grussing encourages, is to clean manure and soil from all equipment, vehicles and trailers that

were used to transport animals from the fair.

“Discard used bedding from trailers, and use soap and water, as well as disinfectant to clean all equipment that may have had contact with other animals,” she said.

In addition to cleaning

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