

Penn State Extension

Agronomy Notes

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Editor Paul H. Craig

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Minimizing Forage Shrink by Managing Baleage

For the next 8 to 11 months your forage supplies will need to be maximized to save feed costs or to ensure top dollar during sales. The drought of 2011 and tight hay supplies has dramatically increased the value of all forages. In the grain business, shrink is referred to as the loss of the commodity from harvest until sale. Shrink also affects forages and can range from 5% to more than 40% and some instances losses can be higher.

Hay corps stored as baleage or haylage can experience significant forage shrink. Long term storage of haylage requires optimum conditions during fermentation in a silo or a wrapped bale. Optimum moistures; short wilting periods; proper stage of maturity; environmental temperatures during the fermentation period; proper use of inoculants; and type and number of plastic wraps will affect the potential for shrinkage. Many baleage producers mark each harvest and feed out according to long term storage considerations. Any exposure to air from rodents and other vermin needs to be repaired to ensure optimum long term storage.

Here is a review of a few sound baleage making principles. Optimum baleage starts with the proper moisture at baling. For grass, baleage the targeted moisture content is 60%, (40% dry matter). For legumes, you need slightly drier forage mass, 45% moisture and (55% DM). The second principle of good Baleage is having a tight bale that starts the fermentation cycle with limited oxygen in the forage mass. Many baleage producers will drive slower, while maintaining a high PTO speed, to produce a tighter wet bale than normally for dry hay bales. Making larger diameter bales, > 4 ft., can also reduce the tightness of the bale. Keep baleage bales to a maximum diameter of 4 feet.

Once you have a tight bale made of forage at the proper moisture, then getting the bale wrapped as quickly as possible will ensure fermentation begins immediately and levels of oxygen in the bales is depleted rapidly. During wrapping make sure to apply sufficient layers of plastic to protect the oxygen free environment of the bale. Any holes from rodents or farm animals will lead to greater shrink losses.

Storing baleage can be a challenge. Some forage will ferment completely and provide ideal storage conditions. Other cuttings will not ferment completely and as a result will not store well, especially during warm periods. Drier forages will only store for up to six months, feed these accordingly. Wet forages, > 60% will rarely keep for three months and need to be fed quickly.

For this reason many baleage producers will identify each cutting with spray paint. Simply piling cutting after cutting in a large area or pile forces the producer to feed out as access permits. Organizing storage allows selecting the poorest bales for rapid feedout during cold periods.

To minimize forage shrink, producers need to consider all aspects of storage and feedout practices. Forage values are the highest immediately following harvest. Shrinkage during storage and feedout can significantly impact total feed costs.

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Does Your Farm Meet the Updated Regulations for Erosion & Sediment Control & Manure Management?

Whether or not you are familiar with PA Chapter 102 (Erosion Control), it has been “on the books” since 1972. “What” you might ask, “how did I not know about this”? Well, the truth is, you would most likely not be the only one who was unaware of Chapter 102. However, that will no longer be the case due to changes and additions to PA Chapter 102 that became effective on November 19, 2010. Farmers are going to have to become familiar with the guidelines of Chapter 102 because they are expected to have an Agricultural Erosion and Sedimentation Plan (Ag E & S Plan) in place for their operation. PA Chapter 102 states that plowing and tilling activities totaling an area greater than 5,000 square feet and Animal Heavy Use Areas (AHUA’s) must have an Ag E & S Plan completed and available for review at the farm.

Steve Taglang, with the PA Department of Environmental Protection (DEP), spoke about this at the Keystone Crops and Soils Conference on October 25, 2011. He pointed out some important facts about Ag E & S Plans. First, your Ag E & S Plan does not have to be sent to DEP. You keep it on your farm, follow what’s in it, and make sure that you can produce it for review upon request. Secondly, Mr. Taglang stated that Ag E & S Plans do not have to be written by a Certified Planner. Farmers may write the plans themselves as long as they have all the required information and documentation. This being said, you also need to be aware of the fact that if you are applying for any assistance from the various conservation programs, your Ag E & S Plans will only be a part of the whole conservation plan that is required for entering into these programs.

For those of you that are unaware, the updated Manure Management Manual (Land Application of Manure, A Supplement to Manure Management for Environmental Protection, Manure Management Plan Guidance) was published on October 29, 2011. As of right now, printed copies are not widely available. However, if you wish to review the updated manual, you can find it at this website: <http://www.portal.state.pa.us/portal/server.pt?open=514&objID=554281&mode=2>.

In this guidance, it states the following:

“Every farm in Pennsylvania that land applies manure or agricultural process wastewater (generated on the farm or received from an importer), regardless of size, is required to have and implement a written Manure Management Plan. This includes manure and agricultural process wastewater application by various types of equipment and/or direct application of manure by animals on pastures and in Animal Concentration Areas (ACA’s).

In other words, farms that do not mechanically apply manure but which do have pastures or ACA’s still need a manure management plan.”

Some of you that have never thought about a manure management plan before may now have to consider whether or not you need one. As with the Ag E & S Plans, farmers may prepare their own Manure Management plans. However, keep in mind that a manure management plan is not a Comprehensive Nutrient Management Plan (CNMP). CNMP’s must still be prepared by a Certified Nutrient Management Specialist. If you would like more information or assistance, please contact Certified Nutrient Management Specialists, Certified Manure Brokers and Haulers, County Conservation Districts, Natural Resources Conservation Service (NRCS) Staff, Penn State University Staff and Farm Organizations. In addition, keep your eyes open for various training workshops that may be held at different locations throughout the state.

Soybean Production Workshops

A series of Soybean Production Workshops are scheduled for the week of December 11, 2011. Each workshop will feature Penn State Researchers, experienced Soybean Growers, and County Extension Personnel presenting information covering all aspects of Soybean production from planting to harvest. Topics include: how to get started in Soybean Production, Soybean Growth and development, weed and insect pest diagnostics, and best practices for harvest and storage. CCA and pesticide credits are available at each location.

The workshops will be held at the Franklin Ag Center in Chambersburg, PA, on Tuesday, December 13, 2011; at the Chester Romano 4-H Center in Honey Brook, PA, on Wednesday, December 14, 2011; at the Columbia Extension Office in Bloomsburg, PA, on Thursday, December 15, 2011; and Giannilli’s II in Greensburg, PA, on Friday, December 16, 2011.

The Soybean Production Workshops run from 10:00 a.m. to 2:00 p.m. at each location. There is a \$10.00 fee to attend, which includes lunch. Pre-registration is required one week prior to the workshop. Information on agendas, speakers and pre-registration is available on the Penn State Extension website by selecting the “Events” tab at <http://extension.psu.edu/lebanon> or by contacting the Penn State Extension - Lebanon County Office at 717-270-4391. Support for the workshops is provided in part by the **Pennsylvania Soybean Board** through the Soybean check-off.

Jennifer Bratthauer
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Crop Insurance News for Dec. 2011 **Report Crop Damage Before End of Insurance Period**

If your production/revenue is less than the insurance guarantee or you have acreage of Corn, Soybeans, or other spring planted crops that can not be harvested by the end of the insurance period, due to adverse weather, be sure to file a notice of damage with your crop insurance agent. The policy requires that damage be reported within 72 hours of discovery and not later than the earlier of within 15 days after harvesting is completed on the insurance unit or the end of the insurance period (12/10 for Corn insured as Grain Corn and Soybeans).

If you have the popular Revenue protection (formerly CRC) for your Corn and/or Soybeans a loss is determined based on revenue (yield times CME price). The insurance revenue guarantee is determined by multiplying your APH yield times acres for the unit times \$6.32/bu. for Corn (the fall price which is higher than the \$6.01 spring projected price) and/or \$13.49/bu. for Soybeans (the spring projected price which is higher than the fall price of \$12.14). Revenue to count is the production (including any appraisals) times the fall harvest price of \$6.32/bu. for Corn and/or \$12.14 for Soybeans. To estimate the amount of loss, subtract the value of the revenue to count from the insurance revenue guarantee (multiple by the ownership share if you have only partial ownership of the crop). Organic prices for Corn are \$10.75 spring and \$11.30 fall; Soybeans are \$24.20 spring and \$21.78 fall.

Modified Apple Record Requirements Approved for Fresh Fruit

The new rules simplify the producer record keeping requirements. Contact your crop insurance agent for details.

Record Premium Subsidy for Producers in 2011

The combined federal and state premium subsidy for producers totaled over \$46 million. It resulted in higher levels of protection more affordable for producers.

Producers With High Yields May Boost 2012 APH Yields



Now is the time to get your production records in order. The challenge is to make sure that your production records meet the crop insurance requirements so that you receive the full benefits of the good yields when you update your crop insurance actual production history records (APH) with your crop insurance agent. Make sure that acreage and production from each insurance unit are included for 2011 and each prior year of your crop insurance databases. If you farm store your production and do not have separate storage facilities for each insurance unit, crop insurance rules require verifiable written records that are accurately recorded during the harvesting season. Feeding records are also required if applicable. A detailed system that meets RMA/USDA standards is available at the website: www.cropins.aers.psu.edu.

The guide contains methods of calculating the bushels/tons of farm-stored production. Don't forget to apply "pack factors" to farm stored grains as it increases the bushels.

Gross Margins Enrollment Dates are December 16 & 17, 2011

A dairy GM December enrollment period may be available. However with the large enrollment in October and high producer interest expressed, at the time of this writing, for November, financial capacity limits may be reached during the November enrollment period. Swine GM protection is expected to be available during the December enrollment period.

For more details on any of the above items, contact a crop insurance agent. A list is available at: <http://www3.rma.usda.gov/apps/agents/>

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Cash Rent With Bonus

I wish I had a dollar for every time I had a call from a landowner about land rental rates. As you might expect, the pace picks up when crop prices are high and there are rumors about someone in the neighborhood offering to pay abnormally high land rent. In most cases, the landowner is happy with their current farmer tenant but since “the rent has been \$x for a number of years” and they think, “maybe they should be getting more.” So how do you commit to paying a higher land rent to compete when you know that prices will cycle down as they always do and what seems affordable now may not be so affordable when grain prices drop.

The concept of variable or flexible land rent is not new but may be something to consider given this scenario. Leases that adjust rents only on either price or yield may actually increase a tenant's risk in some years.

Knowing the non-land production costs of each crop is critical in determining the crop revenue trigger

Adjustments for a combination of price and yield will more closely reflect net income at the crop. A recent article in [Farm Industry News](#) by Gary Schnitkey, University of Illinois, describes a method of determining a cash rent plus bonus based on crop revenues exceeding a pre-determined level. In this method, parameters are set that the landlord and tenant agree to before signing an agreement.

- Base cash rent-the minimum that the landowner will accept

- Maximum cash rent that the tenant will pay
- Crop revenue trigger - a level above which the landowner will get a percentage of, specific to each crop.
- Criteria on which to base the price. This might be a matter of using the average cash price at various grain dealers near the farm.
- The percentage of the amount over the crop revenue trigger that the landowner will receive as a bonus. This might also be different for each crop. The percentage of the landlords’ bonus should relate to the minimum rental price i.e. the landowner assuming less risk by asking for a higher minimum rental rates should get a lower bonus percentage.
- Average bonus amount is weighted by the portion of acres of each crop grown on that farm that year.

Knowing the non-land production costs of each crop is critical in determining the crop revenue trigger. *This revenue trigger should be at least equal to or greater than these production costs plus the minimum base rental rate.*

For more information on this method including a worksheet showing example calculations, go to http://farmdoc.illinois.edu/manage/newsletters/fefol1_17/fefol1_17.html.

If you are unable to get this online, contact either myself or one of the other Extension Educators listed below.

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