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## U.S. and Arkansas Sheep and Goat Inventory

*Steven M. Jones, Associate Professor - Animal Science*

The 2013 Sheep and Goat Inventory was released on January 31, 2014, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA). All sheep and lamb inventory in the United States on January 1, 2014, totaled 5.21 million head, down 2 percent from 2013. Breeding sheep inventory decreased to 3.88 million head on January 1, 2014, down 2 percent from 3.98 million head on January 1, 2013. Ewes one year old and older, at 3.07 million head, were 2 percent below last year. Market sheep and lambs on January 1, 2014, totaled 1.33 million head, down 2 percent from January 1, 2013. Market lambs comprised 94 percent of the total market inventory. Twenty-five percent were lambs under 65 pounds, 11 percent were 65-84 pounds, 24 percent were 85-105 pounds and 34 percent were over 105 pounds. Market sheep comprised the remaining 6 percent of total market inventory.

The 2013 lamb crop of 3.37 million head was down 2 percent from 2012. The 2013 lambing rate was 107 lambs per 100 ewes one year old and older on January 1, 2013, down 2 percent from 2012.

Sheep numbers for Arkansas are not reported by National Agricultural Statistics Service (NASS).

All goat inventory in the United States on January 1, 2014, totaled 2.76 million head, down 2 percent from 2013. Breeding goat inventory totaled 2.26 million head, down 3 percent from 2013. Does one year old and older, at 1.69 million head, were 3 percent below last year's number. Market goats and kids totaled 500,000 head, up 2 percent from a year ago. Kid crop for 2013 totaled 1.74 million head for all goats, down 3 percent from 2012. Meat and all other goats totaled 2.28 million head on January 1, 2014, down 2 percent from 2013. Milk goat inventory was 355,000 head, down 1 percent from January 1, 2013, while Angora goats were down 4 percent, totaling 131,000 head.

In Arkansas, milk goat inventory **increased** by 11 percent from 3,800 in 2013 to 4,200 in 2014. Meat goat inventory **decreased** 10 percent from 42,000 in 2013 to 38,000 in 2014.

**Source:** Sheep and Goats; ISSN: 1949-1611; January 31, 2014; National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA) 

# Managing Neonatal Mortality in Sheep and Goats

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Lambing and kidding seasons are upon us, and if you do not yet have lambs or kids on the ground, you probably soon will. Nothing is better than looking out at the fields and seeing the new lambs and kids nursing or playing. But nothing is sadder than early lamb or kid losses. Lambs and kids are most likely to die during the first eight days of their lives, the neonatal period. In a Wisconsin study over a nine-year period, their sheep flock had a 9.9 percent death loss from birth to weaning. About two-thirds of those deaths occurred on the first day of life. Another 18 percent of those died during the next eight days. That means 84 percent of all lamb deaths occurred between birth and the 8th day of life. There is no similar data available for goats, but it would not be surprising to find they are similar. What this means to you as a goat or sheep producer is you need to do everything you can to reduce your losses during the neonatal period.

The causes of so many of our lamb and kid deaths at birth or in the next few days are usually fairly easy to prevent. In the Wisconsin study, 44 percent of the lambs lost at birth were stillborn. Usually, this indicates an infection like toxoplasmosis, chlamydia or leptospirosis. These infections are often the result of poor hygiene. Make sure the paddock in which you keep your females is clean and free of excessive manure build-up. If you have a large number of stillborns, check with your veterinarian. Make sure your flock or herd is properly vaccinated about 60 days before lambing or kidding begins.

Another reason for a high number of stillborns might be pregnancy toxemia, or ketosis. Ketosis is most common in overconditioned ewes and does but can also be a problem in thin ones. Don't overfeed, but don't underfeed either. Remember, too, that newborns from underfed females tend to have lighter birth weights. Lambs smaller than 7 pounds have higher death losses than heavier lambs. Ewes and does should be in body condition score 2.5 to 3 on a 5-point scale (5 or 6 on the 9-point scale).

Nearly 9 percent of the lamb deaths were the result of a difficult birth, called dystocia. Kids and lambs

undergoing a difficult birth may not have received enough oxygen while they were being born, may have gotten fluid in their lungs or may just be exhausted. Exhausted newborns don't have the energy to keep themselves warm or to get up and nurse. Be ready to assist your ewes or does within an hour after the birth process begins. Make sure you have all the equipment you need and that it is clean before lambing or kidding season starts. Don't breed your smaller females to larger framed males. Larger fetuses have more trouble being born than smaller ones. Lambs over 13 pounds tend to have more trouble being born, so you have another reason to avoid overfeeding your animals.

The Wisconsin study reported that 5.8 percent of the lambs lost suffocated because the amniotic sac

did not break. This is another instance where being prepared and available when birth is imminent can help reduce your losses.

Exposure is another major cause of neonatal losses. Almost as many newborns (8.4 percent)

died of exposure as died after a difficult birth. Newborn lambs and kids are wet and don't have a heavy layer of fat and hair or wool to keep them warm on cold, wet days. Putting your does or ewes in a simple shelter that will keep newborns dry can be enough to alleviate these losses. If you know an animal will give birth soon, put it in the shelter if the weather is expected to be wet or extremely cold in the next couple of days.

Some causes cannot be avoided. For example, lambs born in larger litters had higher death losses. Ewes lambing for the first time had higher lamb losses as well. But knowing this, you can plan to keep a closer eye on these animals.

The moral of managing neonatal losses is keep your paddocks clean, maintain healthy weights, be prepared to assist with birth, provide shelter from extreme weather, and keep an eye on your higher risk newborns. These simple stems could save you nearly 7.5 lambs or kids out of every 100 born. At \$1 per pound for lambs and \$2 for kids (February,

## Managing Neonatal Losses

- ◆ Keep your paddocks clean.
- ◆ Maintain healthy weights.
- ◆ Be prepared to assist with birth.
- ◆ Provide shelter from extreme weather.
- ◆ Keep an eye on higher-risk newborns.

San Angelo, Texas) you could have an extra \$700 to \$800 next year!

More on body condition scoring, feeding ewes to maximize reproductive success, the basics of goat reproduction and managing the kidding season can be found on the University of Arkansas Cooperative Extension web site (<http://www.uaex.edu/publications/default.aspx>).

## Reference

Berger, Y. M. 1997. Lamb Mortality and Causes – A Nine-Year Summary at the Spooner Agricultural Research Station. In: Proceedings of the 45th Annual Spooner Sheep Day. Dept. of Animal Sciences, UW-Madison. p. 33-40. ([http://www.ansci.wisc.edu/extension-new%20copy/sheep/Publications\\_and\\_Proceedings/Pdf/Nutrition%20and%20Health/Lamb%20mortality%20and%20causes.pdf](http://www.ansci.wisc.edu/extension-new%20copy/sheep/Publications_and_Proceedings/Pdf/Nutrition%20and%20Health/Lamb%20mortality%20and%20causes.pdf)).



## Small Ruminant Nutrition

*Steven M. Jones, Associate Professor - Animal Science*

Feed is the single largest cost associated with raising small ruminants, typically accounting for 60 percent or more of total production costs. It goes without saying that nutrition exerts a very large influence on flock reproduction, milk production and lamb and kid growth. Late-gestation and lactation are the most critical periods for ewe and doe nutrition, with lactation placing the highest nutritional demands on ewes/does. Nutrition level largely determines growth rate in lambs and kids. Lambs and kids with higher growth potential have higher nutritional needs, especially with regard to protein. Animals receiving inadequate diets are more prone to disease and will fail to reach their genetic potential.

Small ruminants require energy, protein, vitamins, minerals, fiber and water. Energy (calories) is usually the most limiting nutrient, whereas protein is the most expensive. Deficiencies, excesses and imbalances of vitamins and minerals can limit animal performance and lead to various health problems. Fiber (bulk) is necessary to maintain a healthy rumen environment and prevent digestive upsets. Water is the cheapest feed ingredient yet often the most neglected.

It goes without saying that nutrition exerts a very large influence on flock reproduction, milk production and lamb and kid growth.

Many factors affect the nutritional requirements of small ruminants: maintenance, growth, pregnancy, lactation, fiber production, activity and environment. As a general rule of thumb, sheep and goats will consume 2 to 4 percent of their body weight on a dry matter basis in feed. The exact percentage varies according to the size (weight) of the animal, with smaller animals needing a higher intake (percentage-wise) to maintain their weight. Maintenance requirements increase as the level of the animals' activity

increases. For example, a sheep or goat that has to travel a farther distance for feed and water will have higher maintenance requirements than animals in a feed lot. Environmental conditions also affect maintenance requirements. In cold and severe weather, sheep and goats require more feed to maintain body heat. The added stresses of pregnancy, lactation and growth further increase nutrient requirements.

Animals receiving inadequate diets are more prone to disease and will fail to reach their genetic potential.

A sheep or goat's nutritional requirement can be met by feeding a variety of feedstuffs. Feed ingredients can substitute for one another so long as the animals' nutritional requirements are being met. Small ruminant feeding programs should take into account animal requirements, feed availability and costs of nutrients.

Pasture, forbs and browse are usually the primary and most economical source of nutrients for sheep and goats, and in some cases, pasture is all small ruminants need to meet their nutritional requirements. Pasture tends to be high in energy and protein when it is in a vegetative state. However, it can have a high moisture content, and sometimes it may be difficult for high-producing animals to eat enough grass to meet their nutrient requirements. As pasture plants mature, palatability and digestibility decline, thus it is important to rotate pastures to keep plants in a vegetative state. During the early part of the grazing season, browse (woody plants, vines and brush) and forbs (weeds) tend to be higher in protein and energy than ordinary pasture. Sheep are excellent weed eaters. Goats are natural browsers and have the unique ability to select plants when they are at their most nutritious state. Sheep and goats that browse have fewer problems with internal parasites. 

## Calendar of Events

**May 17-18, 2014** – North Arkansas Meat Goat Association 13th Annual Spring Classic, three ABGA shows, Northwest Arkansas District Fairgrounds, 1400 Fairgrounds Road, Harrison, Arkansas 72601. Two ABGA Sanctioned Open Shows on Saturday and one on Sunday. Early entry fee is \$15, and early entry deadline is May 10. Late entry fee is \$20 and pen fee is \$5. Check-in time is 6 p.m. May 16. ABGA judges are Anton Ward and Jesse Cornelius. The third judge to be announced. The contact person is Robert McMahan at (870) 577-1759, robert@northarkboers.com or <http://www.arkansasmeatgoat.com/springshow.html>.

**May 24-25, 2014** – SEMO Meat Goat Producers 5th Annual Spring Fling “Goats in the Park,” three ABGA Shows, Arena Park, Kiwanis Drive, Cape Girardeau, Missouri 63701. Judges to be announced. Entry fee is \$20, \$50 for three shows. No late fees or pen fees. Arrival date is May 23. Check in on May 23 one hour before show. The contact person is Jim Crowley at (573) 718-1217 or [joncrowley@att.net](mailto:joncrowley@att.net).

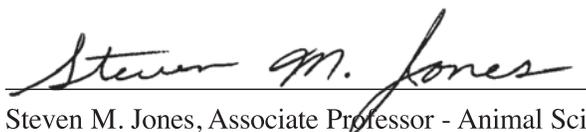
**July 20, 2014** – North Arkansas Meat Goat Association meeting at 2 p.m. in the Farm Bureau Building, 110 Industrial Park Road, Harrison, Arkansas, <http://www.arkansasmeatgoat.com>.

**July 24-August 2, 2014** – Ozark Empire Fair, Ozark Empire Fairgrounds, 3001 North Grant, Springfield, Missouri. Details to be announced. Contact person is Brittany Gillig at (417) 833-2660, [brittany@ozarkempirefair.com](mailto:brittany@ozarkempirefair.com) or <http://www.ozarkempirefair.com>.

**August 7-17, 2014** – Missouri State Fair, Missouri State Fairgrounds, 2503 West 16th Street, Sedalia, Missouri 65301. Details to be announced. The contact person is Edna Vollmer, (660) 530-5616 or <http://www.mostatefair.com>.

**September 19-21, 2014** – Northwest Arkansas District Fair, Northwest Arkansas District Fairgrounds, 1400 Fairgrounds Road, Harrison, Arkansas 72601. Junior Market Meat Goats and Junior Boer Goats, three ABGA open shows. The contact person is Robert McMahan at (870) 577-1759, robert@northarkboers.com or <http://www.arkansasmeatgoat.com/fallshows.html>.

**October 10-19, 2014** – Arkansas State Fair, 2600 Howard Street, Little Rock, Arkansas 72206. Details to be announced. The contact persons are Scott and Jennifer Hawthorn at (870) 246-6353, [jendh34@yahoo.com](mailto:jendh34@yahoo.com) or <http://www.arkansasstatefair.com>.



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