

Got milk? Pasture profits depend on it

By Janet McNally

Editor's Note: This article is reprinted with permission from Graze magazine. To subscribe, call 608-455-3311, email graze@ticon.net, or visit the web site www.grazeonline.com

The business of grazing is about marketing forages through our livestock. A lamb marketed at 90 lbs. consumes about 300 dry matter pounds of forage. In comparison, a 165-pound ewe in a pasture-based system consumes about 2,350 lbs. of forage whether she weans 120 lbs. of lamb, or just 50 lbs. With the ewe flock consuming 78% of the forages in a grazing system, pounds of lamb weaned has a profound influence on returns per acre.

The factors determining pounds of lambs weaned are birth rate, lamb survival rate, growth rate, and milk supply. While many producers do a great job with the first three, few pay enough attention to ensuring an adequate milk supply. Milk production problems can be compensated for in confinement rearing, but the true milking ability of the flock will be exposed on pasture. Here are a few ways milk production can be improved.

- **Cull for poor udder structure.** It does not matter how much milk is on tap if it is not available to the lamb. Indoor lambing has allowed too many udder flaws to proliferate. Catching the ewe to help a lamb find the teat may not seem like such a big deal in a four-by-four pen, but it becomes a huge problem out in the back 40. The lamb is born with an instinct to search under the dam. Lambs search upward, for the teat, not downward. They are programmed to look for an expected teat size — any object bigger than your pinky finger might be ignored. Pendulous ud-

ders and “balloon” or “banana” (overly large engorged) teats are serious problems that affect newborn survival.

A study by Tom Cadwallader (former shepherd at the University of Wisconsin's Spooner research station) indicated that the inability to connect with milk supply in a timely way was the leading cause of lamb mortality in a crossbred, pasture-lambing flock.

Good udder structure means the floor of the udder is well above the hocks, with the teats pointing outward and downward at a 45-degree angle (see photo). This places the teat in the area where the newborn will instinctively look. Any ewe with an udder that falls below her hocks, or with an udder with teats that point horizontally or are too large, should be culled from the flock.

- **Monitor udder health.** Each fall prior to breeding, the flock should be run through a chute, and each and every udder palpated. Check for lumps, unresolved mammary tissue (feels like it is still producing milk), and scar tissue in the teat canal. Cull every ewe with an abnormality.

- **Employ benchmarks for adequate milk supply.** First, the dam must have adequate colostrum to feed her lambs. A simple “+, 0, -” grading system for colostrum supply can help make significant improvements to the survival rate of lambs from birth to three weeks of age. Score the ewe with a “+” if she has abundant milk left after all the lambs have suckled, a “0” if she had just enough, and a “-” if it is necessary to supplement the lamb from a bottle. Cull all ewes that score “-,” and only keep rams from ewes that score “+.”

The next benchmark is lamb health during the first three weeks. Colostrum provides pas-

sive immunity to many newborn lamb disorders. E. coli scours and joint illness (or navel ill) can be indicators of insufficient colostrum quantity and quality. Improve the colostrum supply, and these health issues go away.

The third benchmark is lamb weaning weight. By breeding a smaller, more efficient ewe to a larger, “growthier” sire breed, sheep producers can significantly improve the utilization of their grazing resources. Making this choice correctly can mean the difference between a ewe that weans 70% of her body weight, vs. only 35%. This strategy also has important implications regarding the milking ability of the dam.

- **Match growth potential of the sire to milking ability of the dam.** Something that seems to have been lost over the years is the idea of matching the ewe's milking ability to the growth potential of the terminal sire. Texts from the 1950s and earlier (when sheep were predominantly managed as grazing animals) show this concept was understood. Ewes of poor milking ability were not bred to the largest of terminal sires. They were instead paired with more moderate-size, moderate-growth breeds so that the lamb's growth rate would not outstrip the ewe's ability to support that lamb.

Milking ability determines whether the ewe can provide the superior growth potential offered by the sire. If the milk supply is only going to allow half a pound of daily gain to 100 days of age, then there is no advantage of using sires that can produce 1.25 lbs./day, especially if using those sires means lower lamb survival rates. If milk production is limiting, a better choice is a more

CONTINUED ON PAGE 6

moderate-growth sire that can offer something more, such as higher lamb survival or a better-quality carcass.

- **If possible, select rams with strong maternal weaning weight EBVs or EPDs** to sire the next generation of replacement females. Maternal weaning weight is that portion of the lamb's weaning weight that is attributed to the maternal environment. Approximately 80% of this maternal influence on growth is due to milk production. Both NSIP and Lambplan provide this information.

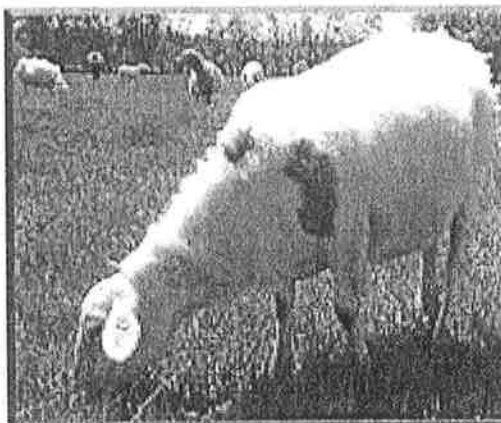
When EBVs are not feasible, look for sires that have lamb weaning weights available (30 to 90 days of age, with 50 days being the most ideal indicator of milk production). Tally up total litter weights, adjust them for age, and compare ewes within their contemporary groups. (For example, compare three-year old ewes to all other three-year olds.) While raw litter weaning weights can help weed out poor producing ewes, this information pales in comparison to the accuracy of maternal weaning weight EBVs.

- **Ensure proper nutrition.** Grazing makes good nutrition easy by providing a diet typically abundant in protein. For most pasture-based producers, nutrition limitations are due either to poor quality stored forages in late gestation prior to the grazing season, or by pushing ewes too hard to clean up residual in the paddock after lambing. If nutrition is the limiting factor, lamb growth will be disappointing, and ewe body condition will fall. In contrast, if it is the ewe's genetic ability that is limiting milk production, ewes will be in good flesh despite the inability to put suitable growth onto the lamb.

A 140-lb. ewe raising three, 40-lb. lambs is producing as much milk per pound of body weight as a 1,400-lb. Holstein producing 90 pounds of milk per day. Some supplementation is usually beneficial and cost effective with such ewes: 45 lbs. of a grain supplement during lactation can result in 15 additional pounds of litter weight.

- **If you suspect OPP, test for it.** Ovine Progressive Pneumonia (OPP) is caused by an ovine lentivirus not unlike human HIV-AIDS. OPP can have a profound impact on milk production by turning milk-secreting tissue into lymph tissue, thus robbing ewes of their potential. A typical infected ewe was a good producer at one and two years of age, but at three years seems to be short of milk at lambing despite having a full and firm udder.

Without milk, all the other components of pounds weaned (lambing percentage, lamb survival, lamb growth) fail to express their full potential. A little house-keeping with milk as the focus will reward the producer with more efficient use of forages, and fewer time-consuming problems at lambing.



"Opal"

*Photography by Darla Noble, Rolla, MO
2005 KHSI Photo Contest
Third Place - Scenic*