

## Labour Saving Efficiencies in Accelerated Lambing Flocks

*By: Anita O'Brien, Sheep & Goat Specialist, OMAFRA and  
Christoph Wand, Beef Cattle, Sheep & Goat Nutritionist, OMAFRA*

Brian Magee, Farm Manager at Cornell University, addressed the topic of “uncomplicating accelerated lambing” at the Sheep Seminars in Atwood and Napanee in November 2006. In his presentation, he outlined some of the practices that enable producers who are implementing the STAR management program to achieve labour savings and efficiencies.

Some of these practices include; limiting ram exposure to 20 days; selecting rams for out-of-season breeding success; udder-checking (palpation) as a means of pregnancy diagnosis; managing the mature flock as two groups; keeping replacements from only one lambing; and maximizing the use of pasture to keep production costs down.

### **Limit Ram Exposure to 20 Days**

Many producers expose the ewe flock to rams for 30 to 35 days (roughly two heat cycles). This results in a lambing period of the same, plus 10 days, or close to 45 days total! By limiting ram turn-out to 20 days (a full cycle plus a few days) for all but the March-April and June breeding, the lambing period is shortened to about 35 days instead of 45. This reduces the annual number of lambing days from 150 to 120 days, so that labour can be used for other activities while still maintaining high productivity.

### **Selecting Rams for Out-Of-Season Breeding**

Remember that neither hormones nor light control are used in the Cornell flock for improved out-of-season breeding. Replacement rams are selected from ewes that have lambed successfully out-of-season on the STAR program. As well, ram lambs are further selected on scrotal size. Yearlings with scrotal measurements less than 35 cm are culled. Rams whose scrotal size shrinks more than 2 cm (1 inch) between the fall and spring breeding period are culled as well, as testicle shrinkage is a sign of seasonality which is not desired in accelerated programs. Brian believes the high success rate on their out-of-season breeding is due, in part, to the selection criteria used in choosing replacement rams.

### **Pregnancy Diagnosis**

Brian uses udder palpitation along with watching for a red to pink colour of the vulva as a means of pregnancy detection. He feels that with Cornell’s white-faced sheep, it is usually 95% effective with one palpation just before a 30-day lambing period. Brian cautions that the October-November lambing period is the exception and the first palpation may detect only 70% of the ewes lambing in the subsequent 30-day period. Therefore, a second palpation 10 days to two weeks into the lambing period is required.

### **Managing the Mature Flock as Two Groups**

One of the challenges of managing accelerated lambing flocks is the number of groups at different stages of production at any given time. Under the STAR management program, the mature ewe flock is managed as two groups:

- 1. Lambing and/or lactating ewes and**

## **2. Breeding and pregnant ewes and rams**

These two groups are kept and managed separately. Late pregnant ewes are moved from the breeding and pregnant flock five times yearly just before lambing and the lactating ewes weaning lambs are moved to the breeding a pregnant flock at about the same time to be bred.

The Breeding and Pregnant flock includes all of the ewes from the time they wean their lambs until they are ready to lamb the next time. It also includes the rams and the young replacement ewes just entering the flock to be bred for the first time. These ewes have relatively low requirements. They need little housing and can be pastured much of the year. The Cornell Dorset ewes utilize excess stock-piled pasture and hay aftermath.

The Lambing and Lactating group required a relatively high level of both feed and management throughout the year. At Cornell, these ewes are lambed in the barn and most often kept inside until weaning. Ewes in this group are fed either good quality hay or hay-crop silage free choice and grain at the rate of 1 pound per day for each lamb. Lactating ewes are managed so as not to lose much weight as they must be able to re-breed soon after the lambs are weaned.

### **Replacements from One Lambing**

The Cornell system also keeps replacement from only its March lambing. There are two reasons for this. Firstly, these replacements are the lowest cost to produce because of the pasture resource, and because it greatly simplifies the rearing of the replacements separate from market animals. The complications around multiple groups of replacements have been a major challenge for Ontario producers on accelerated systems. The Cornell approach requires the ewe lambs be kept out of the breeding group for one breeding in October, at which point they are returned to begin their productive life in the January breeding.

### **Maximizing Use of Pasture**

During the fall and most of the winter months, the dry pregnant flock is pastured on stockpiled pasture and hayfield aftermath. Each day that the ewe flock grazes, rather than being fed stored feeds, results in a feed cost savings of \$0.10 to \$0.15 per ewe. In a flock with 300 dry, pregnant ewes, that is a savings of \$30 to \$45 per day. When grazing can be extended by 60 days, feed savings of \$1,800 to \$2,700 can be realized; by 90 days \$2,700 to \$3,150 in feed savings can be realized. It is all part of keeping production costs down. And contrary to what many producers may have come to believe, speaks to the fact that the STAR program is in reality an extensive system and not an intensive confinement based system in terms of inputs.

To read more about the STAR management system developed at Cornell University, go to the website: <http://www.sheep.cornell.edu/sheep/index.html>