The Lamb Weaning System at Lark's Meadow Farms Lark's Meadow Farms, Rexburg, ID Kendall Russell

It is important to note that our operation philosophy is to operate on a cash basis outside of our farm mortgage. This has pros and cons; and is its own story. An extension of that philosophy is low input / high output through efficiencies and planning.

The genesis of Lark's Meadow Farms lamb rearing method.

When Lark's Meadow Farms was purchased from our in-laws, we had limited credit (saved for emergency use only), limited cash on hand and much much less cash flow, and no workers other than ourselves. Merrick and Land O'Lakes Lamb milk replacer was running \$125+ per 50 lb. bag at the time.....when you bought it by the pallet! Factor in all the labor in mixing milk twice a day for 300 hungry lambs, cleaning milk bars, replacing chewed nipples. We were rebuilding a stripped-out farm in need of replacement of numerous items and a lot of repairs. Time and money were both in short supply in the face of the mandatory duties of milking/feeding twice a day, making cheese, etc.

When you are out of resources you have to be resourceful. Our cheese sales at the time were far less than our capacity to produce even our lower-yielding hard cheese. We had milk to spare so we left lambs on. The relief on cash and time was profound and kept us sane. We were also amazed our milk loss was only about 43% of our production prior to that decision, and it only lasted 40 days. Our incidence of mastitis did not change, neither did our somatic cell count, and our solids changed only slightly in a minor drop in butter fat. We metered every two weeks at the time and sent milk samples to Rocky Mountain DHIA in Utah.

That fall my wife and I, happy with the results, thought how can we modify our new lamb weaning system into a permeant system with less loss of milk? We have always left lambs on for the first 2-3 days to clear the colostrum, so there was step one. We made the business decision to not be in the meat lamb business other than farmers market lambs. So we pulled all no-replacement ewe lambs and unneeded ram lambs at Day 3 of age, and sell them for \$25 as bottle lambs. We looked at the profit ratios for time and inputs. It's a great return for essentially no effort.

Next was pulling lambs off their mothers but for how long and when. We settled on the idea of overnight and pulling the lambs before the evening milking -- a 14-hour overnight separation and then 10 hours with the ewes in the day.

Being a former science student, we ran two control groups and the grand experiment group of pulled lambs. Control 1 was 30 ewe lambs left on mothers for 30 days or twice their birth weight, with free access to 20% protein lamb creep and hay. Control 2 was thirty ewe lambs on a free choice milk bar, free choice 20% protein lamb creep and hay.

Comparison of three rearing methods. The results:

Control group 1 (lambs left on mothers):

- Lambs left on mother grew fastest, most doubled their birth weight by day 25-30.
- Lowest 30, 90, and 1-year mortality
- Nearly no scours (1 lamb).
- 30-day mortality less than 1% (1 of 60)
- 60-day mortality less than 4% (2 of 60)
- 1-year mortality of 10% (6 of 60).
- All lambs from this group were bred that same year.

The experiment group (10 hours with mother, 14 hours separated)

This group was the next best

- All birth weights doubled by day 30-35
- Nearly identical 30- and 60-day mortality to control group 1
- Nearly no scours (2 lambs)
- This group had a 1-year mortality of 15% (3)
- All lambs from this group were bred that same year.

Control group 2 (the milk bar ewe lambs)

The last place group

- Doubling of birth weigh for 77% of these lambs was 35+ days
- Scours in 6 lambs
- 30-day mortality of 15% (3)
- 60-day mortality 25% (25)
- 1-year mortality 30% (6 total out of 20)
- 3 lambs of this group did not breed in their birth year
- The perception was of less vigor and brightness in these lambs in the first 60 day compared to the other groups.

This is by no means a valid scientific experiment – groups of unequal size, and rearing environments not identical or equal in numerous ways. But it provided enough information to steady a gut decision to make permanent change in our lamb rearing.

This is not a perfect system there is some butter fat loss of about 1.5% and a total milk volume loss of around 30% in the first 30 days of lactation in our farm's experience.

There has been no loss in length of lactation nor negative change in the peak of our lactation curves. The losses of initial milk volume are more than tenable for our farm and family's needs given the immediate savings in time and cash. If our overall production of soft cheese exceeds 35% total cheese production, we may need to reevaluate. For now, we are more than happy.

Eureka! The LMF Lamb-weaning system was born for the following year, and we have never stopped.

The Nutshell of the LMF Lamb-weaning system

- 1. All lambs on mother to Day 3.
- 2. All non-essential lambs pulled and sold at Day three/four of age, off the farm. (We have a wait list and the price goes up \$5/day so folks are usually prompt. We also will sell to who is next in line for lambs.)
- 3. All lambs pulled before the evening milking (4 pm) and returned after the following morning's milking 6am. Effectively a 14-hour off / 10-hour on split.
- 4. Ewe lambs are completely weaned at Day 30 or double their birth weight whichever comes last.



