

Using a 12-hour Suckling System in the 1st 30 Days of Lactation

Meadowood Farms, Cazenovia, NY

Quincy Wool Parker, Manager

In 2015, we met Kendall Russell at the Dairy Sheep Symposium and he told us how he had adapted the MIX system, and how it worked very well for him. (We had tried the MIX system in 2002, as presented by the Spooner Station. It didn't work well, and so we had not continued to use it then.) Kendall's system focused on taking a week to transition the ewes and the lambs to being separated at night.

Most ewes on 12-hr system in 2016 & 2017

In 2016, we used Kendall's System on 85 of the 110 mature ewes that we lambd out in the spring. It was very successful: on those 85 ewes and approximately 150 lambs, we used neither milk replacer nor labor to manage baby lambs. We made very good cheese with the milk, even when $\frac{3}{4}$ of our mature ewes were on the 12-hr Suckling System. And the 12-hr lambs were as well-conditioned as lambs who were continuously suckling, and we did not see any drop in their consumption of creep feed, condition, or weight gain when they were weaned at D30. We did make some mistakes at the start:

- We didn't have a good system for separating ewes and lambs
- We didn't have a secure way to move the ewes away from the lambs, and they kept trying to return to their lambs
- We thought we should have the ewes out of earshot, but that meant in outside pastures, and they made mudpits

But once we moved the separation chute to a place where it was easy to separate ewes and lambs, and decided to keep the ewes inside until they were settled, everything went smoothly.

Selected ewes and market lambs on 12-hr system in 2018 and 2019

In 2018 and 2019, we used the 12-hr Suckling System again. By this time we had good systems for the early transition pens, and we had set up a really good system for separating the ewes and lambs, and the whole process was smooth and simple and successful.

Also, we only put enough ewes on this system to satisfy our contract to supply finished market lambs. In 2019, this was 25 ewes with 50 Dorper twin lambs at side. (Replacement females were removed at D1 and raised on milk replacer; all other lambs were sold at D1.)

In 2019 we selected 25 ewes for whom it was most convenient and efficient for us to put on the 12-hr Suckling System:

- They all lambbed in a 10-day period
- They were either already nursing when we found them, or were easy to get onto the teats.
- They all had twins, preferably males (no triplet females on pendulous udders!)

Why the adapted 12-hr Suckling System works at Meadowood Farms

1. For us:
 - No lamb bar costs -- no milk replacer, no lamb bar labor
 - We get milk for the first 30 days
 - Results in high-quality meat lambs
2. For the ewes:
 - Doesn't compromise ewe's seasonal production – because their udders are emptied completely at least twice per day, the production of dairy ewes is not stunted
3. For the lambs:
 - Lambs get dam's milk
 - Heavy weaning weights without a hiccup. Lambs transition well at 30-day weaning – they have already become used to creep feed, and already used to dam being absent

The system used at Meadowood Farms. On Table 1, we have laid out the entire 12-hr Suckling System as we use it at our farm.

Components of ewes on the 12-hr Suckling System

Back in 2001, there was a lot of discussion about MIX system ewes withholding their milkfat, so that the milk collected was lower in fat. But we have found that in the first month or so of lactation, for about 25-50% of each row for *all* of our ewes – whether they are 12-hr Suckling ewes or ewes with no lambs – we have to give an upper-udder massage to get some of the ewes to full let down, or we have to put the cups back on after taking them off, to fully milk them out.

On Table 2, we have laid out the component analysis for 23 ewes in 2019, each suckling twins while being milked 2x/d through D30. You can see that on average at D22, they produced an average of 3.7 lb/hd/d while suckling twins, and their component levels did not differ significantly from 20 ewes (Table 3) who were at a similar stage of lactation and who had no lambs on them. (Not in the tables: SCC, which was almost identical between the two groups.)

Table 1. the 12-hr Suckling System used at Meadowood Farms					
	Day 1	Day 2-3	Day 4-7	Day 8-30	Day 30 +
	Bonding pen	Small group pen	Transition pen	12-hr suckling & separation	
Where?	In jug with ewe	Family Pens: 2-3 ewes and their lambs	Single group of all ewes and lambs Day 4-7	<ul style="list-style-type: none"> Single group of all ewes and lambs Day 8-30 On each D8, put 8-day-old lambs into this group; run D8 ewes into this grp after AM milking 	Weaned at D30
Milking?	Colostrum milking	Ewes milked 2x/day and immediately returned to lambs	Ewes milked 2x/day and immediately returned to lambs	<ul style="list-style-type: none"> Milked in the AM Ewes & lambs together for the day Separated just before PM milking Ewes and lambs separate all night Ewes return to lambs ~ ½ hr after milking 	2x/day
Extra labor/care	Assisting lambs onto ewes	Watch for lost/hungry lambs	Sorting off lambs before milking	<ul style="list-style-type: none"> Lamb night pen cozy, well bedded, grain, hay, water, etc. Lambs always stay in same pen/area – ewes leave & return 	
Really important Key points	24-hour bonding time with ewe.	<ul style="list-style-type: none"> Only twins Paint on lambs/ewes Easy jug/pen for lambs during milking 	easy jug/pen for lambs during milking	<ul style="list-style-type: none"> Have an easy sort gate/chute, with anti-backup gate. A cozy night pen for lambs away from ewes. Ideal to have plenty of space for E & L when together during the day 	
Challenges?	Ewe has teats pointing down/ low udder/ full milk out ewe before lambs can nurse (do not bottle-feed).	<ul style="list-style-type: none"> Mis-mothering Multiple pens with hay, water, grain, etc. 	<ul style="list-style-type: none"> Need an easily expandable pen Time spent catching lambs before each milking. 	Teaching ewes and lambs to run into chute/ sort gate. (Time once settled is only 5 min for 25 ewes & 50 lambs)	
Milk production			AVG DIM: 8 AVG LBS/D: 3.7	AVG DIM: 22 AVG LBS/D: 4.0	AVG DIM: 38 AVG LBS/D: 7.0
Weaning				Weaned @ 30 days. AVG wt: 34lbs	

23 ewes suckling twins on 12-hr system: Component percentages on May 2, at avg 22 DIM

Table 2.

# lamb suckling	Tag	Ewe age	Days in milk 5/2	FAT	PRO	LAC	SNF	TSOLIDS	Lbs milked 5/2
2	1256	7	26	5.52	4.61	5.19	10.88	16.40	2.42
2	1314	6	19	6.20	4.94	5.10	11.13	17.33	5.28
2	1345	6	23	6.22	4.35	5.06	10.43	16.65	4.18
2	1425	5	24	6.15	4.98	4.44	10.42	16.56	5.5
2	1508	4	23	6.62	4.36	5.08	10.47	17.09	3.3
2	1528	4	20	5.84	4.10	5.19	10.33	16.16	4.4
2	1532	4	25	5.70	4.87	5.22	11.20	16.89	2.2
2	1533	4	20	6.26	4.31	5.16	10.51	16.77	3.08
2	1548	4	25	5.52	4.54	5.13	10.74	16.26	2.31
2	1602	3	22	5.77	4.44	5.05	10.54	16.31	2.64
2	1606	3	22	7.80	5.45	4.20	10.63	18.43	1.98
2	1609	3	26	7.13	4.48	5.18	10.70	17.83	4.84
2	1611	3	17	6.40	4.12	5.16	10.30	16.69	5.06
2	1613	3	23	5.61	4.73	5.29	11.13	16.73	3.3
2	1614	3	25	4.39	4.58	5.10	10.77	15.16	3.74
2	1615	3	25	5.18	4.38	5.29	10.75	15.93	2.64
2	1623	3	19	6.28	4.45	5.22	10.73	17.01	3.52
2	1628	3	14	4.67	4.00	5.21	10.26	14.93	3.52
2	1632	3	26	5.51	4.68	4.64	10.33	15.84	3.08
2	1633	3	25	4.93	4.55	5.37	11.03	15.96	5.06
2	1656	3	24	7.33	4.12	5.19	10.31	17.64	3.52
2	1657	3	23	6.86	5.06	5.05	11.19	18.05	4.73
2	15190	4	17	6.06	4.36	5.27	10.70	16.76	3.96
Average		3.8	22	6.00	4.54	5.08	10.67	16.67	3.7

20 ewes w/ no lambs: Component percentages on May 2, at average 34 DIM

Table 3.

# lamb suckling	Tag	Ewe age	Days in milk 5/2	FAT	PRO	LAC	SNF	TSOLIDS
0	1335	6	3	5.46	4.60	5.22	10.92	16.38
0	1343	6	24	6.49	5.11	4.59	10.74	17.23
0	1400	5	41	5.78	4.52	5.15	10.73	16.51
0	1427	5	42	5.77	4.39	4.88	10.28	16.05
0	1431	5	38	6.28	4.69	5.04	10.78	17.05
0	1436	5	39	6.26	4.65	4.96	10.64	16.90
0	1445	5	52	6.99	4.71	4.97	10.71	17.70
0	1521	4	42	6.41	4.84	5.17	11.11	17.52
0	1604	3	40	5.92	4.56	4.89	10.48	16.40
0	1605	3	54	6.65	5.00	5.36	11.48	18.13
0	1626	3	38	6.65	5.00	5.08	11.17	17.82
0	1629	3	23	6.75	4.40	5.34	10.80	17.55
0	1634	3	39	6.58	4.89	5.17	11.14	17.72
0	1635	3	37	7.10	4.96	5.26	11.32	18.42
0	1638	3	41	5.03	4.68	5.38	11.19	16.21
0	1639	3	11	6.31	4.11	5.38	10.54	16.84
0	1641	3	22	7.37	5.00	5.26	11.35	18.72
0	1644	3	39	5.73	4.65	5.02	10.73	16.45
0	1648	3	40	7.01	5.05	5.17	11.32	18.32
0	1654	3	12	6.50	4.87	5.21	11.16	17.66
Average		3.9	34	6.35	4.73	5.12	10.93	17.28