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A comparison of fall lambing vs. spring lambing performance of purebred and crossbred ewes

A. L. Slyter
South Dakota State University

Bruce Read

Ron Swan

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A.L. Slyter, Bruce Read, and Ron Swan
Department of Animal and Range Sciences

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Summary

Results of once a year fall lambing are presented for various ewe groups for the years of 1989 through 1992. Comparisons are shown for fall versus spring production levels for 1991 and 1992. The desirability of fall lambing is discussed. Economic and management factors must be weighed before recommendations are made for an individual producer.

Key Words: Sheep, Fall lambing, Lambing performance, Purebred vs crossbred

Introduction

Seasonality of lamb production continues to be a major problem for the sheep industry. The recent marked drop in live lamb price resulted from a shift of west coast lambs going to market as new crop spring lambs started through the market channels. Spreading the production and marketing curve should smooth out wide price fluctuations and stabilize the economics of the entire lamb meat industry. Fall lambing in combination with spring lambing would provide a more continuous lamb supply for market, slaughter, and consumption, thus stabilizing prices and ensuring a better supply of new crop fresh American lamb at the retail counter. This study was initiated to evaluate the productivity of ewes lambing in the fall versus ewes lambing in the spring on a once per year lambing interval.

Experimental Procedure

Purebred Hampshire and Columbia ewes and crossbred Finn x Dorset (FD), Finn-Dorset x Targhee (FDT), and Hampshire x FDT (HFDT) are included in this study. Originally Hampshire and Columbia ewes were placed in the fall flock starting in 1989 if they lambed in the fall under one of the following conditions:

1. Spring lambing ewes were exposed following weaning (during lactation in 1991) and those that subsequently lambed in September-October were placed in the fall flock.
2. Spring born maiden yearling ewes were treated with melengestrol acetate (MGA) in 1989 and 1990 and those that subsequently lambed in September were placed in the fall flock.
3. Natural born fall lambs from the "fall" flock remained in the fall flock.

Once in the fall flock they remained there with no other alternative lambing opportunity. Crossbred ewes were simply switched to fall lambing or were spring born ewes that were started on a fall lambing sequence.

Breeding management for all groups included 2 weeks of flushing and teasing prior to introduction of intact fertile rams. Flushing continued a minimum of 2 weeks after intact rams were introduced. Various groups as well as

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the spring and fall groups were handled similarly the rest of the year with nutritional requirements met with a variety of feeds (pasture, silage, concentrates) utilized based on availability.

Results and Discussion

Fall lambing performance of the various ewe groups for 1989 through 1992 are shown in Table 1. Percentage lambing has ranged from a low of 0% for purebred Hampshires in 1989-1991 to a high of 97.1% for FDT and HFDT ewes in 1989. Lambs born per ewe lambing ranged from 1.0 for purebred Columbias in 1991 to a high of 2.1 for FD ewes in 1990.

Tables 2 and 3 show comparisons of fall versus spring lambing of ewes of similar genetics. No fall-spring comparison is available for FD ewes since they were all integrated into the fall flock. In general, a higher percentage of ewes lambed in the spring flock with .3 to .7 more lambs per ewe lambing. Also, as discussed earlier, crossbred ewes excelled purebred ewes.

Table 4 presents the results of purebred Hampshire and Columbia ewes bred following weaning of their spring lamb crop. A high of 59.3% of the Hampshire ewes lambed as a result of exposure in 1992, resulting in two lamb crops within 9 months for these ewes. As the table indicates, results have been highly erratic. In 1991, exposure was during lactation and no ewes lambed to spring exposure.

Few virgin ewe lambs, either those born in September and exposed at 7 to 8 months of age or those born in April and exposed at 12 to 13 months of age, have lambed in September at less than 24 months of age. A few (19 of 259) crossbred ewe lambs and 1 of 40 of the purebred ewe lambs lambed in September for their first time. Overall, this is less than 7%. Successful integration of maiden ewes into our fall lambing system continues to be a major hurdle.

In summary, the data presented indicate a lower percentage of ewes lambing in the fall with a lower lambing rate. However, this must be balanced by lower input cost for lambing and feeding the dry ewe through winter. Also, the market advantage for fall lambs must be considered. For example, our 1992 fall lambs sold in the high $70's per hundredweight compared to spring 1992 lambs in the low $50's per hundredweight. Even if the bottom line is a wash, fall lambing spreads labor requirements, expands facility usage, and aids the industry in providing the consumer a year-round supply of fresh American new crop lamb.

Table 1. September lambing performance of various ewe breeds[a]

Breed of ewe	Year	No. exposed	No. lambing	Percent lambing	Lambs born per ewe lambing
Hampshire	1989	11	--	--	--
	1990	9	--	--	--
	1991	22	--	--	--
	1992	24	7	29.2	1.71
Columbia	1989	12	8	66.7	1.30
	1990	20	13	65.0	1.10
	1991	43	16	37.2	1.00
	1992	45	6	13.3	1.33
Finn-Dorset	1989	6	2	33.3	1.40
	1990	17	13	76.5	2.10
	1991	21	14	66.7	1.71
	1992	28	15	53.6	2.00
FDT or HFDT[b]	1989	35	34	97.1	1.90
	1990	69	45	65.2	1.50
	1991	88	53	60.2	1.51
	1992	153	94	61.4	1.33

[a] Ewes 24 months of age or older at lambing.
[b] FDT = 1/4 Finn, 1/4 Dorset, 1/2 Targhee; HFDT = Hampshire x FDT.

Table 2. Lambing performance of various ewe breeds - 1991-1992

	September 1991			February 1992		
Breed of ewe[a]	No. exposed	Percent lambing	Lambs born per ewe lambing	No. exposed	Percent lambing	Lambs born per ewe lambing
Hampshire	22	0.0	0.0	85	92.9	1.90
Columbia	43	37.2	1.00	57	84.2	1.70
Finn-Dorset	21	66.7	1.70	NA[c]	NA	NA
FDT or HFDT[b]	88	60.2	1.50	95	91.6	2.20

[a] Ewes 24 months of age or older at lambing time.
[b] FDT = 1/4 Finn, 1/4 Dorset, 1/2 Targhee; HFDT = Hampshire x FDT.
[c] NA = not applicable.

Table 3. Lambing performance of various ewe breeds - 1992-1993

Breed of ewe[a]	September 1992			February 1993		
	No. exposed	Percent lambing	Lambs born per ewe lambing	No. exposed	Percent lambing	Lambs born per ewe lambing
Hampshire	24	29.2	1.71	53	81.1	1.79
Columbia	45	13.3	1.33	63	82.5	1.60
Finn-Dorset	28	53.6	2.00	NA[c]	NA	NA
FDT or HFDT[b]	153	61.4	1.33	18	94.4	2.41

[a] Ewes 24 months of age or older at lambing time.
[b] FDT = 1/4 Finn, 1/4 Dorset, 1/2 Targhee; HFDT = Hampshire x FDT.
[c] NA = not applicable.

Table 4. Fall lambing performance of purebred ewes bred following weaning of spring lamb crop

Breed of ewe	Year	No. exposed	No. lambing	Percent lambing	Lambs born per ewe lambing
Hampshire	1989	56	0	--	--
	1990	44	10	22.7	1.40
	1991[a]	63	0	--	--
	1992	81	48	59.3	1.17
Columbia	1989	48	6	12.5	1.33
	1990	50	19	38.8	1.05
	1991[a]	44	0	--	--
	1992	50	2	4.0	1.00

[a] Exposed during lactation.