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Boost Profits By Breeding Ewe Lambs

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Results of research indicate that Idaho sheepmen can dramatically increase profits by:

- Breeding ewe lambs so they will produce their first lambs as yearlings, and
- Pregnancy-testing and marketing the nonpregnant lambs as fat lambs.

Important facts to consider are:

- Ewe lambs born early in the lambing season are more likely to breed as ewe lambs.
- Good nutrition is necessary for lambs to mature and develop sexually at a younger age.
- Lambs have a shorter breeding season than ewes.
- Some breeds mature earlier and breed more readily than others. The Rambouillet is slow to mature and difficult to breed as a lamb. Finnsheep crosses mature at an extremely early age and light body weights. Most other breeds are intermediate. Lifetime lamb production is much greater for ewes that lamb as yearlings than for ewes that lamb first as 2-year-olds.

Profits from sheep can be significantly increased by breeding ewe lambs to produce their first lambs as yearlings.

Idaho sheepmen usually breed replacement ewes to lamb first at about two years of age. One of the easiest and fastest ways to improve production and profit in a sheep enterprise is to breed ewe lambs to produce a lamb crop when they are approximately one year old.

Greater lifetime production can be obtained from ewes bred to lamb first as yearlings. Some early research showed that breeding ewes for the first time as lambs resulted in a material increase in total lamb production and a slight decrease in wool production (1). Another study compared 84 ewe lambs bred at 9 to 10 months of age with another 84 bred for the first time at 18 months. Over 5 years, the ewes bred early produced 2,572 pounds more lambs (2).

3
322

Additional care, feed and management are essential if replacement ewe lambs are to be bred to lamb as yearlings.

Here are the key practices necessary for success:

1. Breed at the right time of the year.

Ewe lambs born early in the lambing season are more likely to breed as lambs. Studies by the University of Idaho Agricultural Experiment Station and the U.S. Sheep Experiment Station, Dubois, show that the breeding season of ewe lambs is much shorter than that of mature ewes. November is the optimum breeding time for April-born lambs at Dubois. October is a satisfactory breeding time for lambs born in January and February at Caldwell.

Front — A 13-month-old Panama ewe with lamb at the University of Idaho Research and Extension Center, Caldwell.



Table 1. Effects of management and breed on fertility of ewe lambs bred in November and December at 6 to 7 months of age.

Breed	Ewe lambs pregnant (%)				
	1970 ¹	1971 ²	1972 ³	1973 ⁴	1974 ⁵
Rambouillet (R)	61	11	4	16	37
Targhee (T)	76	48	11	57	73
Dorset (D) x T	88	90	35	64	86
Finnsheep (F) x R	100	97	92	94	87
F x R x T x D		83	77	94	97

¹ Fed and bred in drylot with ewe lambs only. Half received 3.3 lb. alfalfa pellets per head per day, balance self fed.

² All given 1.75 lb. alfalfa pellets as a supplement to dry fall range. Bred on range with mature ewes.

³ Same as for 1971 except that heavy snow and blizzard conditions existed near end of breeding. Bred on range with mature ewes.

⁴ Half fed same as in 1971. Half received 3.3 lb. pellets per head per day. Half bred with mature ewes, half bred with ewe lambs only.

⁵ Same as 1971, except very few bred with mature ewes.

Below — A group of 11 1/2-month-old Finn x Rambouillet crossbred ewes with lambs at side, at the U.S. Sheep Experiment Station, Dubois.

2. Feed lambs to assure fast growth and development. Adequate nutrition is essential for lambs to reach the size and sexual development necessary for early breeding. The ewe lambs must gain at least a quarter-pound per day following weaning.

During the grazing season, a palatable grass pasture, preferably one containing some legumes, should be adequate. If good pasture is not available, supplement so the ewe lambs will gain about a quarter-pound per day. For ewe lambs in confinement, feed high quality alfalfa hay at a rate of 3.3 to 4.0 pounds per day. If the hay isn't high quality and the lambs won't eat it well, it may be necessary to feed one-fourth to one-half pound of grain per lamb per day.

3. Consider the breed. Research with April-born range lambs at Dubois clearly indicates that certain breeds mature earlier and conceive more readily than others (Table 1). The Rambouillet in particular is slow maturing and requires extremely good nutrition to breed successfully as a

Table 2. Lambing performance of January- and February-born Panama ewe lambs bred in October and early November at Caldwell, Idaho.

Year	Number	Initial breeding date	Average age at breeding (days)	Average weight at breeding (lbs.)	Treatment	Ewes lambing (%)	Lambs born of ewes lambing (%)	Lambs weaned of ewes lambing (%)	Lambs weaned of ewes bred (%)
1971-72	26	10-1-71	266	118	Drylot	88	113	91	81
1971-72	26	10-1-71	258	106	Pasture	92	138	100	96
1971-72	30	10-1-71	256	108	Purebred	97	128	103	91
1972-73	26	10-1-72	259	110	Drylot	88	126	104	92
1972-73	26	10-1-72	262	114	Pasture	81	119	110	88
1972-73	32	10-1-72	255	111	Purebred	88	130	96	81

lamb. The Targhee can be managed for successful early breeding with reasonably good nutrition and pregnancy testing. Crosses with as little as 25 percent Finnsheep breeding have a very high conception rate. It appears that a flock will improve in ewe lamb breeding success if managers select for this ability.

4. Pregnancy test. The rectal-abdominal palpation technique for pregnancy testing developed by Hulet (3) can be used on ewe lambs 60 to 70 days after breeding. Save only the pregnant ewe lambs and send the open lambs to market as fat lambs. Depending on breed and environmental conditions, pregnancy-tested ewe lambs should produce from 80 to 120 percent weaned lambs.

The importance of pregnancy testing is indicated in the Caldwell data (Table 2). In 1972-73, only 81 percent of the pasture ewes lambed, with 88 percent lambs weaned. However, if the non-pregnant ewes had been identified by pregnancy testing and marketed as fat lambs, the percentages would have been 119 percent lambs born (of ewes lambing) and 110 percent weaned.

5. Select replacement ewes that conceive as lambs. Ewes that will breed as lambs are more productive throughout their lifetime than those bred to lamb

Table 3. Lamb production of whiteface range ewes bred to lamb as yearlings vs. ewes lambing first at two-years.

Age at first lambing	Age of ewe (years)	Lambs born of ewes lambing (%)	Lambs born ^a (%)	Lambs weaned ^a (%)	Total lambs weaned (lbs.)
One year	1	100 ^b	111	83	56
	2	98	143	115	84
	3 & over	97	158	134	107
	Overall ^c	135	194	159	120
Two years	1	0	0	0	0
	2	88	102	82	58
	3 & over	89	141	115	87
	Overall	89	124	101	74

^a Percent lambs born or weaned of ewes bred.

^b Only those ewe lambs diagnosed pregnant were saved.

^c Total flock production based on number of ewes 2 years old and older.

at 2 years of age (Table 3). In addition to beginning production a year earlier, the ewes bred to lamb as yearlings had higher conception rates and higher weaning percentages in subsequent years. New Zealand research indicates that selection of ewes based on their ability to breed as ewe lambs will improve the twinning rate of a flock as rapidly as selecting directly for twinning.

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2. Spencer, D.A., R.G. Schott, R.W. Phillips and B. Aune. 1942. Performance of ewes bred first as lambs compared with ewes bred first as yearlings. *J. Anim. Sci.* 1:27.

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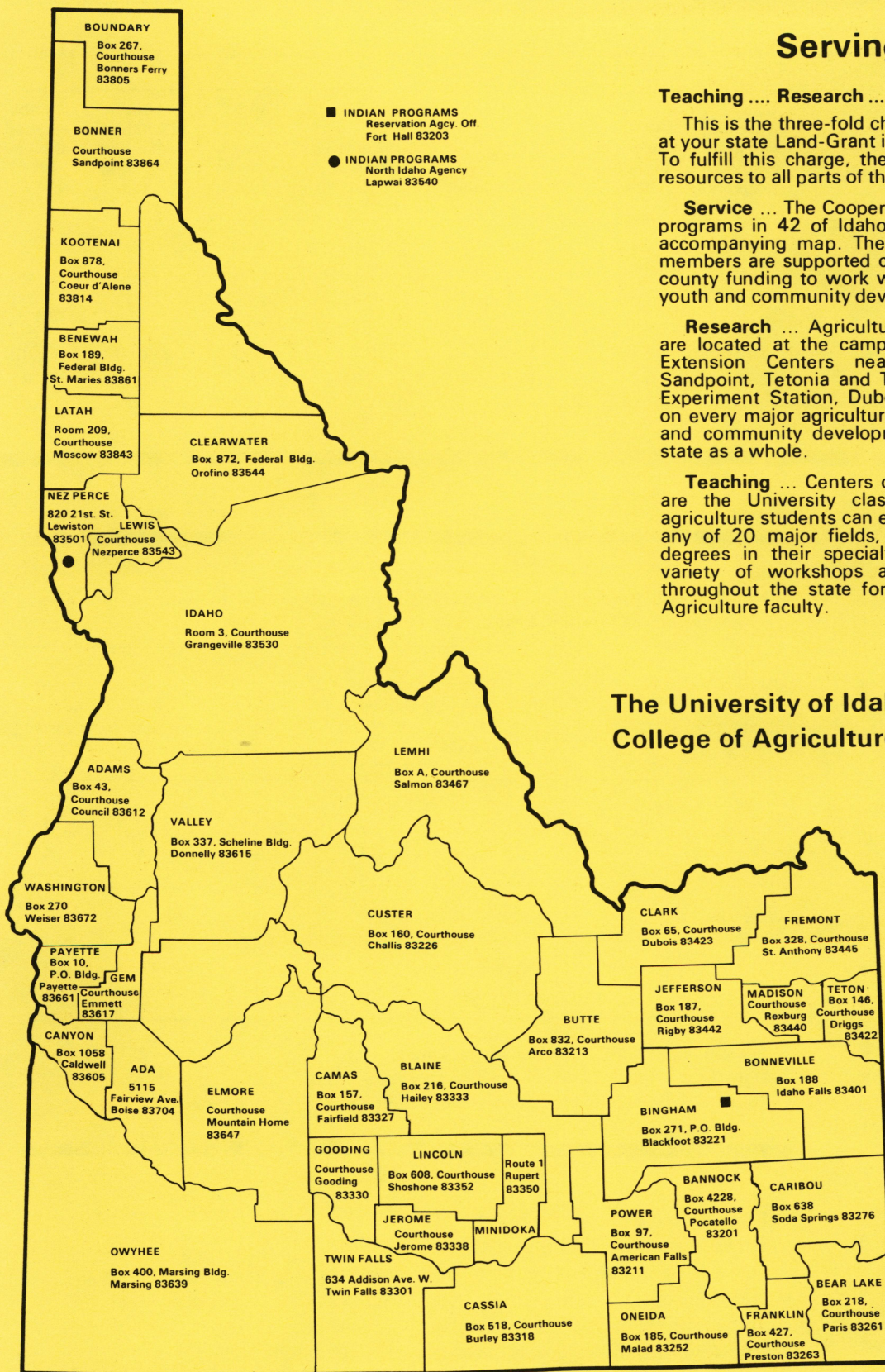
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