

# Gains of Two Types of Lambs

Suffolk cross lambs from whiteface ewes showed slightly faster gains than Corriedale crosses in comparative study

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**Range wether lambs** sired by Suffolk rams gained slightly faster than lambs— from similar ewes—sired by Corriedale rams, during the fattening period on native range or irrigated pasture.

Each year the lambs were sold in two groups. When enough lambs were fat to justify marketing, a commercial buyer sorted the lambs. Those not fat remained on pasture. There were no differences in the rate of gain between groups during this second period.

The lambs observed in the study were born at Hopland in 1952, '53, and '54. The two types of lambs resulted from the program of raising replacement ewes at the Station. Half of the ewes in the flock of grade Corriedales—considered best from the standpoints of appearance, weight and wool production—were bred to Corriedale rams to produce replacement ewe lambs. The remaining ewes were bred to Suffolk rams to produce market lambs. Birth dates are not available because of range lambing, but all ewes lambed over about the same period, so age differences should be unimportant between groups.

The initial pasture periods were 60 days in 1952, 49 days in 1953 and 50 days in 1954. The periods were considered ended when the lambs were sorted and the fat ones shipped for slaughter. Numbers, weights, and gains of lambs as well as the per cent slaughtered at the end of the initial period are

given in the table on this page. In 1952 and 1954, lambs were shipped from the station on the dates indicated in the table and fed on Ladino clover pastures on a ranch at Elk Grove. In 1953, the feed season was much longer at Hopland and lambs were held on the range feed until June 9, when they were ready for sorting. The periods recorded in the table are believed to be the most comparable for the three years.

The difference in the starting weight

of the two types of lambs was quite large each year. That difference represents faster growth before weaning by Suffolk cross lambs than by the Corriedale cross. This may influence the resulting comparison of these later gains somewhat, but the comparison seems practical, because—if a buyer of feeder lambs had a choice between these two types of lambs of the same ages and from similar range—feeder lambs would be expected

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Lamb Weight Gains During Initial Pasture Period

1952	Type	No.	Wt. lbs. 5/22/52 Hopland	Gain 60 days Elk Grove,* lbs.		Weight 7/21/52 Elk Grove	Per cent Slaughtered
				Total	per day		
Corriedale cross	wethers	130	59.5	19.7	.33	79.2	62.6
Suffolk cross	wethers	120	72.9	21.5	.36	94.4	
Suffolk cross	ewes	120	67.7	19.3	.32	87.0	
1953							
1953	Type	No.	Weight 4/21/53 Hopland	Gain 49 days Hopland,** lbs.		Weight 6/9/53 Hopland	Per cent Slaughtered
				Total	per day		
Corriedale cross	wethers	109	59.5	14.1	.29	73.6	20
Suffolk cross	wethers	111	62.9	16.7	.34	79.4	
Suffolk cross	ewes	119	59.9	15.7	.32	75.5	
1954							
1954	Type	No.	Weight 6/7/54 Hopland	Gain 50 days Elk Grove,* lbs.		Weight 7/27/54 Elk Grove	Per cent Slaughtered
				Total	per day		
Corriedale cross	wethers	123	67.6	11.4	.23	81.0	51
Suffolk cross	wethers	112	73.6	13.4	.27	90.2	
Suffolk cross	ewes	107	69.5	12.9	.26	86.3	

\* Elk Grove pasture was good quality irrigated Ladino clover in Sacramento County.

\*\* Hopland pasture was native annual range during the growing season in Mendocino County.

Feeder lambs on irrigated pasture.



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to differ about as indicated by these groups.

Each year of the study the lambs were sorted for slaughter by a commercial packer buyer. In 1952, the buyer—at request—took approximately equal proportions of the two types of lambs. In 1953 and 1954 the buyer sorted out the lambs considered fat enough to produce U.S.D.A. Choice or U.S.D.A. Good carcasses. In both years a larger proportion of the Suffolk cross wethers was considered ready than of the Corriedale cross type.

Statistical analysis of the differences in weights and gains showed them to be highly significant. Averaging the three years' results together, the Suffolk cross wethers gained about 1.2 pounds per month faster than the Corriedale cross wethers.

Wether lambs of the Suffolk cross out-gained the ewe lambs of the same type. Because the Corriedale cross ewe lambs were kept for replacements at the station,

gain and weight statistics are not available for comparison. Difference between sexes in the Suffolk cross lambs was significant in the first two years but not in the third. Averaging the results of the three years together shows that the wether lambs gained about 0.6 pound more per month than the ewes. There was a slight tendency for the ewes to be more uniform in weights and gains than the wethers, but the differences were not significant in most cases. When the weight gains made by lambs of different starting weights within the different groups were compared, they were found to be remarkably uniform. Within each group, the smaller lambs gained at the same rate as the larger lambs.

The table to the left gives weights and gains for the remaining lambs after the first load was slaughtered. It took 28 days in 1952, 39 days in 1953, and 28 days in 1954 to get the remaining lambs fat enough for slaughter. While differences in initial and final weights for this period remain significant in most cases, the gains of the three groups did not differ significantly.

Second Pasture Period after First Load Was Slaughtered

1952	Type	No.	Weight 7/21/52 Elk Grove	Gain 28 days at Elk Grove		Weight 8/18/52 Elk Grove
				Total	/day	
Corriedale cross	wethers	49	72.5	8.6	.31	81.1
Suffolk cross	wethers	35	88.8	8.3	.30	97.1
Suffolk cross	ewes	48	83.4	7.7	.28	91.1

  

1953	Type	No.	Weight 6/26/53 Elk Grove	Gain 39 days at Elk Grove		Weight 8/4/53 Elk Grove
				Total	/day	
Corriedale cross	wethers	38	79.0	7.4	.19	86.3
Suffolk cross	wethers	39	81.8	8.1	.21	90.6
Suffolk cross	ewes	53	74.4	7.4	.19	81.6

  

1954	Type	No.	Weight 7/27/54 Elk Grove	Gain 28 days at Elk Grove		Weight 8/24/54 Elk Grove
				Total	/day	
Corriedale cross	wethers	52	80.3	5.6	.20	85.9
Suffolk cross	wethers	35	85.5	6.5	.23	92.0
Suffolk cross	ewes	19	79.8	5.6	.20	85.5

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distribution of the volume of shipments presented earlier, it is difficult to visualize individual shippers enjoying many of the economies of large scale output. While it is probably true that they could approach the higher optimum output rates for a small number of hours, and for a limited number of days during the shipping season, considerable difficulty might be encountered in mobilizing crews willing to work under such conditions.

Therefore, many plants would pre-

sumably operate at considerably less than the typical capacity rate of 420 crates per hour. If realized output was as little as 210 crates per hour, the differences in direct costs per crate, as compared with plants of 420- and 630-crate output rates would be 5¢ and 7¢.

Thus, under present operating conditions, considerable economies could probably be realized through the consolidation of packing house operations in two or three plants. Since the typical existing packing plant in Salinas is designed for a capacity of 420 crates per hour, consolidation of packing operations into three plants of this size would

Year	No.	Car- cass Yield %	Slaughter Data			
			% in Carcass Grades			
			P*	C*	G*	U*
1952						
Corriedale cross	169	48.0	17.1	73.5	8.8	0.6
Suffolk cross	283	52.6	50.0	47.0	3.0	0
1953						
Corriedale cross	59	52.2	0	64.0	32.0	3.0
Suffolk cross	201	50.9	0	68.0	30.0	2.0
1954						
Corriedale cross	92	48.7	0	48.9	50.0	1.1
Suffolk cross	169	49.4	0	68.6	31.4	0

\* P-Prime, C-Choice, G-Good, U-Utility.

Slaughter data showed that when fed until fat, the yields of the two types of lambs were the same. Although Suffolk cross lamb carcasses graded slightly higher, the difference was not great.

In 1952 when the buyer took equal proportions of both types of lambs—in the first sorting—there were undoubtedly many Corriedale cross lambs slaughtered too early. In the other two years when more of the Corriedale cross type were fed for a longer period, there was less difference in the carcass grades.

Averaging the carcass yields for 1953 and 1954—when slaughter conditions were comparable—the Suffolk cross lambs yielded 50.2% while the Corriedale cross yielded 50.1%.

It is evident from these trials that Suffolk cross lambs from whiteface ewes can be expected to gain a little faster than Corriedale cross lambs, but if both are fed to satisfactory degree of finish, the carcass value of the two types will not be very different.

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probably be most feasible from the standpoint of approximating a minimum-cost situation for the ice-packed output.

The comparison of costs in different sized packing plants was considered independently of field harvesting and hauling operations. Studies of these operations have not revealed any substantial economies of scale. Thus, the addition of harvesting and hauling costs—while affecting the level of total costs per crate—would not affect the relative costs among packing plants of different sizes.

The cost comparisons in this study are based on the assumption of separate lo-

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