

Average weight gains, marketing data and financial results are shown in Table 1. The effects of stilbestrol are shown in Table 2.

Observations

The average daily gains of all lambs grazing wheat pasture were very satisfactory (.39, .36, .37, and .39 pound per lamb daily for Lots 1, 2, 3, and 4, respectively). Wheat pasture alone gave slightly better results than a combination of wheat pasture and a maize field (compare Lots 1 and 2). Supplemental feeding (Lot 1 vs. Lot 3 or 4) did not increase gains. However, the lambs supplemented with $\frac{3}{4}$ pound milo per head daily during the entire period were fatter as indicated by carcass grade and dressing percentage.

The wheat pasture was grazed at a rate of 5 lambs per acre. On the basis of total gains of the Lot 1 lambs (1710 pounds) minus actual shrink to market (155 pounds) times market price (\$24/cwt.), the wheat pasture was worth approximately \$37 per acre during the 88-day grazing season.

The lambs of Lot 5 (50 lambs grazed 3.3 acres of combine maize with volunteer wheat pasture for 34 days, and then self-fed on this pasture 45% ground milo, 5% molasses, and 50% ground alfalfa hay for the remaining 54 days) also made very satisfactory gains. During the first 34 days, the lambs gained 8.5 pounds per lamb or .25 pound per day. During the remaining 54 days on pasture, the lambs consumed 2.5 pounds of the mixture per head daily and gained .47 pound per lamb per day. On the basis of the total gains during the first 34 days, this 3.3 acres returned approximately \$30 per acre. The pasture was of some value during the remaining 54 days since only 5.3 pounds of mixture were required per pound of gain.

The Effects of Stilbestrol Implants

The results are shown in Table 2. Stilbestrol increased gains in four out of five treatments. In three treatments, the increase approximated 25%. No explanation can be given why stilbestrol depressed growth rate in Lot 2. Most of the growth response for Lots 1, 3, 4, and 5 occurred during the first 60 days. Stilbestrol implants decreased dressing percentage very slightly in four lots out of five treated. Carcass grade was also lowered slightly (less than $\frac{1}{3}$ grade) by stilbestrol implants in four lots out of five. Stilbestrol as an implant has not been approved by the Federal Food and Drug Administration for use with lambs.

Trucking Versus Rail Shipment of Feeder Lambs

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During the past five years, it has been noted that feeder lambs shipped via rail from the range area of Texas or New Mexico to the

Ft. Reno Station shrank about 9-11 percent. Since this loss in weight appeared excessive, it seemed desirable to check the shrinkage, recovery of weight loss, death loss, and economy of shipping lambs via truck as compared to rail shipment.

Procedure

Five hundred grade Western feeder lambs were purchased October 15 at Roswell, New Mexico. Two hundred of these lambs were shipped by truck, the remaining 300 via rail. On arrival at the Ft. Reno Station, the lambs were weighed, drenched, vaccinated against enterotoxemia, and ear tagged. The truck lambs and the rail lambs were penned separately. During the first day at the station, the lambs were fed prairie hay, ad lib. The following day the lambs were started on a self-feeder using a mixture composed of 25% ground milo, 5% molasses, and 70% ground alfalfa hay. This ration was self-fed for 10 days. At the end of this 10-day period, the lambs were weighed to check the recovery of weight loss.

Two hundred and fifty of these lambs were then used for wheat pasture studies and the remaining 250 lambs were used for dry-lot studies.

Observations

The results are shown in Table 1.

Table 1.—Trucking versus rail shipment of feeder lambs

	Truck lambs (200)	Rail lambs (300)
Av. Wt. at Roswell	75.7	77.6
Hours in transit*	14	58
Av. Wt. at Ft. Reno	73	70.7
Pounds loss per lamb	2.7	6.9
Percentage shrink	3.6	8.9
Cost of transportation per head	.93	.69
<i>During 10-day feeding trial</i>		
Pounds of gain per lamb	3	6.1
Av. feed intake per lamb	2.43	2.45
Pounds of feed/pounds of gain	8	4
Pounds of feed per lamb necessary to recover loss in weight	24	27
Death loss	3	12

* The rail lambs were unloaded, fed, and watered at Amarillo, Texas. The lambs were off the rail car for 28 hours.

Very little difference was noted in the amount of feed necessary to recover the loss in weight. The death loss—due primarily to enterotoxemia—was higher for the rail lambs, perhaps due in part to conditions and time in transit. This work will be repeated to further study this problem.