

Lot Size Effects When Selling Feeder Cattle

Charles Martinez, *Assistant Professor*

Christopher N. Boyer, *Professor*

Seth Ingram, *Graduate Research Assistant*

Haylee Ferguson, *Undergraduate Research Assistant*

Department of Agricultural and Resource Economics, University of Tennessee

Kenneth Burdine, *Professor*

Department of Agricultural Economics, University of Kentucky

Adapted from: Martinez, C., C. N. Boyer, and K. Burdine. 2021. "Price Determinants for Feeder Cattle in Tennessee."
Journal of Agricultural and Applied Economics

Before marketing calves, producers must make management decisions such as castration, market location, when to sell and what weight to sell the calves (Martinez 2020). These management decisions could be influenced by the number of head that the producer is selling. For example, marketing variables such as location and date of sale may vary when selling five head versus 60 head of feeder cattle. The producer selling 60 head might have the option to market their cattle in sales that aim to market all their feeder cattle in one single lot versus selling them individually or in smaller lots. Ideally, when selling large amounts of cattle, a common rule of thumb is to sell as close to a "load lot" as possible. Load lots refer to "truckload lots" of cattle that equate to 48,000-50,000 lbs. (Griffith 2019). Furthermore, research has suggested moderate premiums for larger and more uniform lots range \$1 to \$3 per cwt (Burdine et al. 2014).

In Tennessee, a sale that provides a platform to sell in load lots is the Lower Middle Tennessee Cattle Association (LMTCA) Video Sale. The video board sale occurs once a month, in Columbia, Tennessee, and aims to market feeder cattle in load lots of 50,000 lbs. It is consignment based, with the majority of the consignments from Tennessee and additional consignments originating in North Alabama and Western North Carolina. This publication uses results from a recent study (Martinez, Boyer, and Burdine 2021) that analyzes the effect of lot sizes when marketing larger groups of cattle at the LMCTA sale for the time frame of 2015-2020. The data set includes 1,164 lots sold. The average head count per lot was 58 and an average total weight of 47,850 lbs. per lot (approximately 825 lbs./head). Figure 1 displays the percentages of the lots sold based upon the weight increments of 10,000 lbs. from 20,000 to 50,000 lbs. While there were lots sold that were greater than 50,000 lbs., the majority of the cattle sold in lots less than 50,000 lbs., thus this publication focuses on those below 50,000 lbs.

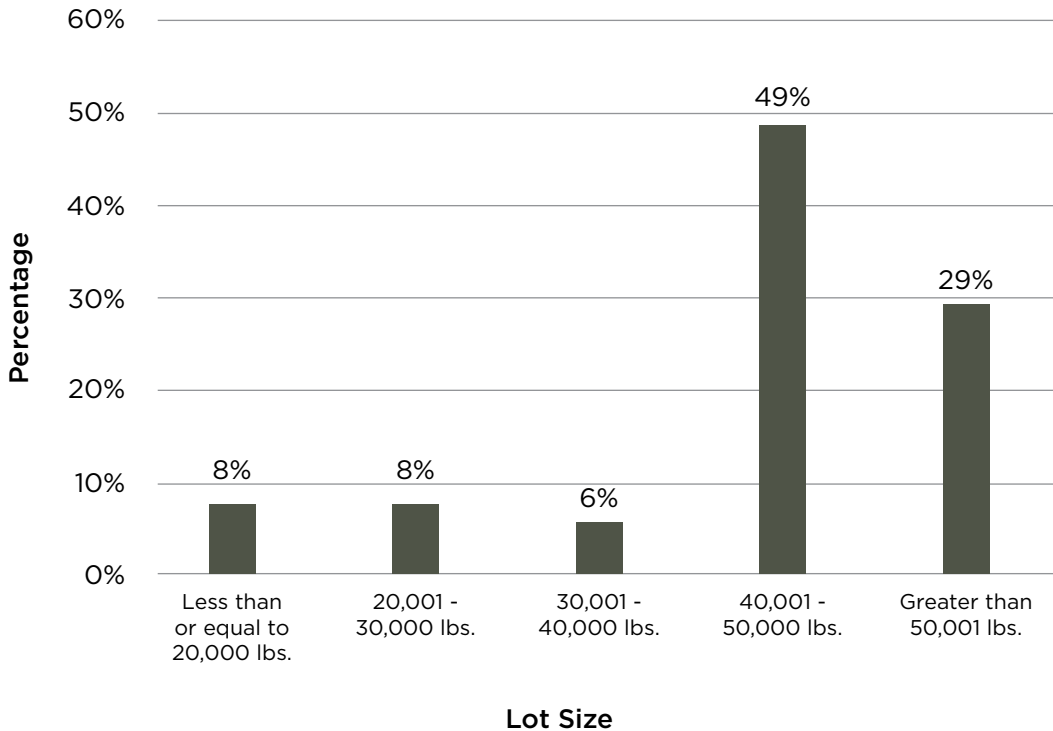


Figure 1.
Percentage of Sales by Total Lot Weight at the Lower Middle Tennessee Cattle Association Video Sale from 2015-2020.

Accounting for value added management practices, seasonality and average weight per head in the lot, results from this study showed that price received varies across total lot sizes. Figure 2 shows the average price per hundredweight across the total lot sizes. Specifically, groups of cattle above 40,000 lbs. secured significant price premiums over the three lower total lot weight groups.

Results indicated that a producer should be aware of the total weight being sold relative to the average weight per animal in the lot. For example, if we assume a producer is selling a uniform lot that has a weight of 750 lbs. per head, a lot weighing 35,000 lbs. equates to approximately 47 head of feeder cattle. A lot totaling 45,000 lbs. equates to 60 head of uniform feeder cattle. As shown in Figure 2, a producer selling a 45,000 lbs. lot received a \$3.80 per cwt premium relative to a producer selling a 35,000 lbs. lot. This yields a \$29.73 per head premium for feeder cattle sold in a 45,000 lbs. lot when compared to feeder cattle sold in a lot totaling 35,000 lbs. due to the management decision of total load weight.

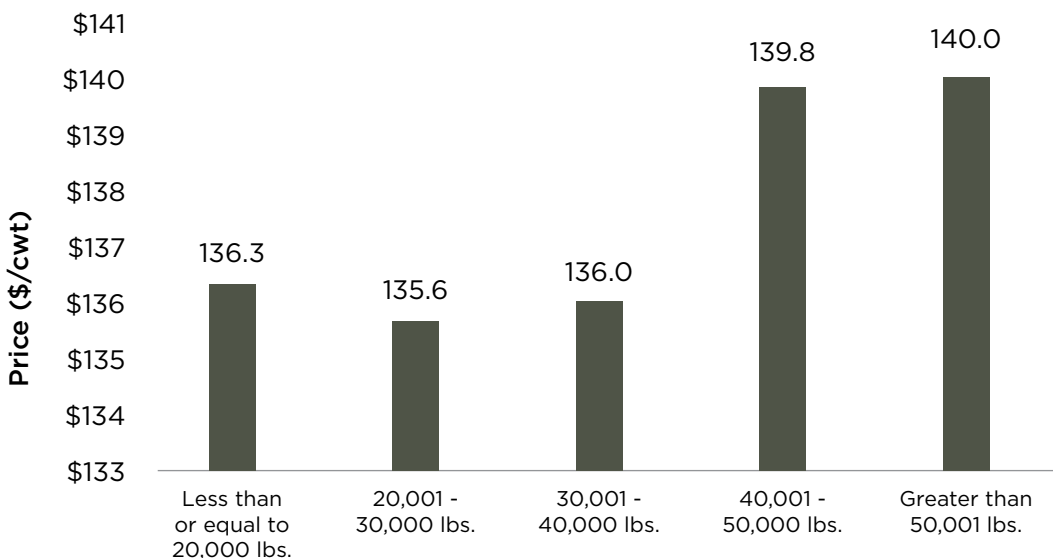


Figure 2.
Average Price of Feeder Cattle Sold by Weight Classes at the Lower Middle Tennessee Cattle Association Video Sale from 2015-2020.

Furthermore, lots of 20,000 lbs. and below had a greater numeric selling price. This result might be a function of buyer competition attempting to fill loads when smaller groups are purchased within this sale. For example, if a buyer has purchased a group of cattle weighing 35,000 lbs., they might be inclined to bid aggressively on a group weighing around 15,000 lbs. as they need that group to have a marketable load lot around 50,000 lbs.

For producers falling in the discounted range for lower end weight totals, there are alternatives to still manage for the premium. Producers could partner together to market cattle in a full load lot, or a single producer could decide to sell in a smaller 20,000 lbs. load. The 20,000 lbs. load (also known as piece loads) could be used as a complementary load to other loads in the sale. Another option could be to market cattle through an alliance. These types of sales allow producers to deliver smaller loads of cattle, and the sale matches and sorts cattle to be sold in load lots. If a producer intends to sell in an alliance type sale, it is important that the producer still takes the management steps of organizing uniform loads in type and kind.

This publication highlights the effects of lot size on the price received for feeder cattle. It is important for producers to know the total end weight of the lot when marketing cattle in truckloads to avoid discounts and capture premiums. Although other management decisions may have been made that typically receive premiums at market, if the lot is between 20,000-40,000 lbs., there could be a significant price discount offsetting value added to the cattle. Ultimately, a producer is not required to market 50,000 lbs. exactly, but it is recommended to strive for lots just above 40,000 lbs. Furthermore, if a producer sells in the low 40,000 lbs. range, the added cost to reach 50,000 lbs. does not add an additional price premium and the load should be sold at the current weight range.

References

- Burdine, K.H., L.J. Maynard, G.S. Halich, and J. Lehmkuhler. 2014. "Changing Market Dynamics and Value-Added Premiums in Southeastern Feeder Cattle Markets." *The Professional Animal Scientist* 30:354-361
- Griffith, A.P. 2019. "Cattle and Beef Market Definitions." University of Tennessee Extension Publication W801.
- Martinez, C. 2020. "To Cut or Not to Cut? Price Comparisons of Bulls and Steers in Tennessee." University of Tennessee Extension Publication W901.
- Martinez, C., C. N. Boyer, and K. Burdine. 2021. "Price Determinants for Feeder Cattle in Tennessee." *Journal of Agricultural and Applied Economics*



UTIA.TENNESSEE.EDU

Real. Life. Solutions.™

W 1037 11/21 22-0085