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Carcass-Based Marketing of Cattle and Hogs—Why More Producers Don’t Use It

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When marketed on a carcass basis, the value of cattle and hogs to packers is determined after slaughter and is based upon direct measurement of carcass weight and quality. This practice makes it possible to reward producers of high quality livestock with higher payments and to penalize producers of relatively low quality livestock with lower prices.

Livestock producers can often benefit from selling cattle and hogs on a carcass, or carcass grade and yield basis. University research has often shown that dollar losses accrue to producers and packers alike because liveweight estimates of carcass grade and yield do not accurately reflect the use value of livestock to packers. Recently, an article in a popular farm magazine reported the results of a study in which a sample of market hogs sold on a liveweight basis brought $44.50 per hundredweight. Had the same hogs been sold on a carcass grade and yield basis, they would have ranged in price from $40.58 to $49.91 per hundredweight.

Besides rewarding producers of more valuable animals, carcass-based selling can show the producer how to improve the quality of his livestock. If the producer learns that feeding practices and/or the quality of feeder stock are responsible for lower than average payments, he can, if he chooses, change these practices or the quality of the stock the next time he feeds. Research recently reported by the authors indicated that livestock producers using carcass-based marketing believe that the method increases their net returns, makes payments more equitable and provides producers with information which enables them to improve their breeding and feeding programs.

The practice can benefit packers and consumers as well. Packers reduce their risk of overpayment, and consumers’ preferences are reflected directly to producers.

In spite of the benefits which may accrue to livestock producers who market on a carcass basis, a relatively small share of all producers do so. In 1978, only 25.5 percent of slaughter cattle and 10.4 percent of slaughter hogs were sold on a carcass basis. In recent years, there has been no evidence of an upward trend in the share of livestock sold on a carcass basis.

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3. A. Lee Meyer and Mahlon G. Lang, Carcass Based Marketing of Cattle and Hogs, Purdue University Agricultural Experiment Station Bulletin No. 300, November 1980.


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Which Producers Market on a Carcass Basis?

A recent study surveyed producers in three states (Illinois, Indiana, and Iowa) and packers in five states (Illinois, Indiana, Iowa, Kansas, and Nebraska). The study determined that producers investing most or investing the greatest share of their capital in livestock production are most likely to market on a carcass basis. This is one of the most persuasive arguments for the benefits of the method to producers. Users of the method rely on livestock for a large share of their income and have relatively large livestock operations. Further, the larger production units tend to sell a greater share of their livestock on a carcass basis.

Some of the survey findings are that:

- Producers selling on a carcass basis received an average of 84 percent of their revenue from livestock sales. For livestock producers not selling on a carcass basis, only 66 percent of revenue was accounted for by livestock sales.
  - Of 168 cattle feeders, 83 (49%) sold more than 200 head per year; of these, about half sold on a carcass basis. Of 85 cattle feeders, (51%) selling fewer than 200 head per year, only one-fifth sold on a carcass basis.
  - Of 195 hog producers, 132 (68%) sold more than 500 head per year; of these, 59 (45%) sold some on a carcass basis. But of the 63 producers (32%) selling fewer than 500 hogs per year, only 11 (17%) sold any on a carcass basis.
  - Of the 29 producers selling more than half of their cattle on a carcass basis, 20 (69%) were producers of more than 200 head per year. Of the 42 producers selling more than half of their hogs on a carcass basis, 36 (86%) sold more than 500 head per year.

Why Don’t More Producers Sell on a Carcass Basis?

The authors' study was conducted to determine why more producers don't sell on a carcass basis. The study found that the most important obstacle to use of carcass based marketing is that the method forces the producer to commit livestock for sale before he knows exactly what he will be paid. This obstacle is an unavoidable characteristic of carcass-based marketing since the packer does not know before slaughter what the livestock is worth to him.

A closely related obstacle is the producer's difficulty of comparing terms of trade between alternative carcass-based systems. The capacity to make such comparisons not only requires knowledge of weighing, grading, and trimming procedures but also premium and discount schedules.

Delay in payment is another major obstacle to the use of carcass-based methods. Packers and Stockyards Administration regulations require that payments "be made to producers before the close of the first business day following the determination of purchase price." But, by nature, carcass-based marketing delays the time at which the purchase price is determined and, therefore, payment to producers.

Another major obstacle is often the producer's lack of confidence in the accuracy of carcass-based grading. This distrust stems from the fact that grading takes place in the packer's plant and generally out of sight of the livestock producer even though it is performed by USDA graders.

Packers' Perceptions Of Producers' Concerns

Most packers wish to purchase more of their livestock supplies on a carcass basis. In some cases, they are willing to make adjustments which would encourage producers in this direction. The authors' research indicates


that packers do not always accurately perceive the importance of obstacles to carcass-based marketing. Packers recognize that the need to commit livestock before value is determined is the greatest obstacle to producers. But packers thought that delayed payment and the difficulty of comparing alternative offers were relatively unimportant. If packers are more aware of producers' concerns, they may be more able to respond to those concerns.

What Would Cause Producers to Sell More Livestock on a Carcass Basis?

If producers are to sell more livestock on a carcass basis, the following conditions are necessary.

1) Producers must be readily able to estimate their total returns using a carcass-based premium and discount schedule.

2) Producers must be able to compare the value of their livestock on alternative carcass-based grading systems.

3) Producers must understand the practical limitation on speed of payment.

4) Producers must become familiar with the carcass-based grading process if they are to develop confidence in the integrity of the method.

Given the general interest of meat packers in expanding the use of carcass-based marketing, meat packers and livestock extension specialists could play a role in bringing the interests of producers and packers together by helping to overcome these obstacles.

Experience Would Help Producers

Experience with carcass-based marketing reduces producers' concerns about the method and helps them to recognize more benefits from its use. For example, compared to producers who have never sold on a carcass basis, producers who have sold on a carcass basis:

- Have more confidence in the accuracy and honesty of grades and the grading system.

- Are more able to compare alternative grading systems.

- Are more able to compare carcass-based alternatives to liveweight marketing alternatives.

- Believe more commonly that the procedure provides information useful in future production practices.

- Believe that carcass-based marketing leads to fairer payment.

- Believe that the method increases net returns.

Producers who are skeptical of carcass-based marketing may be encouraged by the experiences of others. The factors listed above indicate that use of the method is often informative and beneficial to producers who try it.

What Packers Could Do

Packers could contribute to producer understanding of carcass-based methods by providing cut-out data on direct market, liveweight sales and a statement of what they would have been paid had the livestock been sold on a carcass basis. Some packers already compute cut-out data for liveweight as well as carcass-based purchases and would assume relatively little added expense in providing such data to producers. For other packers, this offer would be more costly.

To the extent that packers do make such information available, three purposes would be served:

1. Producers could begin to relate the quality of their livestock to the packer's carcass-based grading system and to develop a capacity to estimate their returns given the packer's grading system, the grade-out record from the producer's past sales, and knowledge of his own livestock.

2. To the extent that other packers provide the same service, this process would help producers develop the capacity to compare alternative grading systems.

3. The process would show producers of high quality livestock that they could have earned more by selling on a carcass basis. At the same time, it
would show other producers what they would have to do to capture greater returns and how much they could benefit from doing so.

Along with such information, packers could inform producers that Packers and Stockyards Regulations require that payments be sent to producers within 24 hours after price is determined. This would reduce the extent to which producers perceive exaggerated delays in the receipt of payment.

Packers could also cooperate with extension specialists in an effort to demonstrate the carcass-based grading process for livestock producers. Familiarity with the process may well reduce distrust on the part of producers. Another possibility in this regard is for packers to invite growers to observe the grading of their cattle or hogs. This has been done with success in the grading of other agricultural commodities.

What Livestock Extension Personnel Could Do

Livestock extension specialists could play two roles in expanding the use of carcass-based marketing. First, they could play the role of catalyst in organizing livestock producers, prompting the above activities by packers and bringing both groups together to facilitate communication about the issues mentioned above.

Second, extension specialists could engage in direct educational efforts by presenting data on the benefits of carcass-based sales and developing illustrations of the pay-out consequences of alternative grading systems. The authors are not aware of major efforts to model the effects of using such alternatives. But it is conceptually simple and feasible to develop such a model for hand or computer use.

Why Everyone Shouldn't Market on a Carcass Basis

The potential for producer and packer gains from carcass-based sales is not always great enough to justify use of the method. Some producers and small packers deal with each other on a regular basis. Under these circumstances, the packer may be familiar enough with each producer's stock to have confidence in his estimate of its value. A producer whose cattle or hogs are consistent in quality may already be recognized and rewarded.

In some cases, the potential gains from carcass-based sales at a given scale of operation may not justify the use of a federal grader. In still other cases the opportunity to sell livestock at auction or terminal markets may prove more attractive to producers than are direct market sales, even though potential gains from carcass-based sales are only possible through direct markets.

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