Chapter Eleven: MARKETING EVOLUTION

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Introduction

Just as the organization of pork production systems is evolving rapidly, the marketing system which provides coordination between different levels in the marketing chain must evolve to meet new demands. How is the marketing system evolving? How have the changes in the structure of the industry affected price levels and price patterns? What will be the level of hog prices in the future? How rapidly are prices moving toward a carcass merit basis, rather than a live basis? How do genetics and carcass pricing affect revenues? In this chapter we will turn to these questions. It is clear that a greater degree of coordination between production systems and pork marketing systems is coming. The development of a better coordinated pork system must involve input suppliers, producers, and processors.

More Highly Differentiated Pork System

The pork industry is moving from a commodity industry to a differentiated product industry. The commodity industry is based upon producing a product in which each unit is treated approximately the same, and economic advantage derives primarily from being low cost producers and marketing to high volume, low cost processors.

As the industry becomes more consumer oriented, it is increasingly important to differentiate the overall quality of hogs coming into the processing plant and to coordinate the type of genetics and production practices which enable them to meet consumers’ desires. It is likely that various segments of the consumer market will develop. This means that various processors and their hog producing suppliers will be organized to meet these segments. Thus, there is a need to better coordinate the types of hogs flowing into the processing plant.

Some processing-production segments may be directed toward certain export destinations; others may be more traditionally targeting a commodity type of market either in the United States or overseas. The important realization, however, is that the genetics and production practices may vary from segment to segment.

Coordinating the Marketing Chain

Traditionally, the role of coordination in a commodity system was facilitated by spot market prices. However, the price system has had less than perfect performance in linking producers with processors and processors with the consumer. This does not mean that the price system is unable to improve on its past performance. For it to do so, however, considerably more information must be transmitted with price signals.
The most dramatic movement in this direction has been in carcass merit pricing. In a carcass merit system, the economic values of animals are differentiated by characteristics unique to each animal. It is also clear that more detailed characteristics can also be coordinated with price. For example, for a price premium, producers would be willing to supply a certain type of genetics to market on certain days and in predetermined volumes, or to alter their production practices to meet the needs of final consumers.

Alternatives to the role of price as the coordinating mechanism do exist. These, of course, include vertical integration, in which one firm owns and coordinates all the production-processing-marketing functions and forms of contracting.

Because carcass merit pricing systems are expected to become the primary system in the future, a special section providing details on monitoring techniques and types of programs used by various packers is included in this chapter.

Advantages of Marketing in Modern Pork Systems

In pork systems as described in this publication, marketing becomes one more of the steps in a coordinated system to meet consumer pork desires. Genetics, nutrition, herd health, and other production decisions are made to meet the specific needs of their market segment. Marketing provides not only revenues, but also information regarding how well the hog production system is meeting those needs. Thus, it provides an important piece of the required information for continuous improvement of the entire production system. Marketing is not an autonomous decision, but rather one made when a producer “buys in” to a particular market segment. Marketing decisions are highly interrelated with other production decisions. Marketing is related to genetic selection, to nutrition, and possibly to herd health.

There are many implications of movement toward this type of coordinated marketing systems. Commodity marketing as we know it today will fade. The practice of calling multiple buyers on marketing day to find the best bid will be diminished. Alternatively, the decision of where to ship hogs might be made once a year, or every few years, when decisions are made regarding which processing-marketing segment to work with. In some regions of the country there will remain several alternatives for producers to work with. In others, there may be only one alternative, and producer and processor will either thrive or recede together.

It is likely that pricing will gradually move away from being established at the point of delivery of the live hog. Rather, it may move toward a reward system based upon the meat products sold, directly relating to the components of cuts in each carcass.

Risk sharing is another likely outcome of greater market coordination. Neither producers or processors tend to like the enormous swings in margins that are part of the industry’s history. Swings in margins tend to lead to swings in capacity utilization and destabilization for the industry. Pork systems of the 21st century will seek greater stability.

These changes will not occur overnight, but the trends are distinctly in this direction. A commodity type of market in pork may well exist for years into the future, but new investments in
buildings and equipment today should not be made with the anticipation of using them in a commodity marketing system throughout their lifetime.

**Potential Future Prices**

Along with changes in marketing come changes in price patterns for hogs. To make long-range plans, costs are difficult enough to estimate, but what about revenues? What will prices be in the future? Will there be a hog price cycle? What prices should be used for long-run planning? Answers to these questions are critical to the long-term decisions that all producers must make.

First, there are some producers who feel that hog prices as experienced in late 1994 and early 1995 are now the norm for the industry. This is not likely to be the case. The reason is that those price levels were sharply below costs of production for the industry as a whole. As long as the hog industry is dominated by a relatively large number of producers, as it is now, prices over long enough periods of time must be reasonably close to the total costs of production for the industry in total. Costs of production is therefore an important component in determining the direction of prices in the longer term.

**Historical Prices**

In the past 13 years, from 1982 to 1994, costs of production per hundredweight have trended sharply downward. These changes in costs have ultimately been reflected in a trend toward lower prices as shown in Figure 11-1. Reasons costs have moved lower since 1982 include: lower feed grain and protein prices; lower interest rates; better feed efficiencies; increased flow of hogs through buildings; improved sow productivity; and industry restructuring in which lower costs operations tend to replace higher costs operations. Labor costs per hundredweight, however, have tended to rise, as higher wage rates have not been offset by modest increases in labor productivity.76

As an example, in 1982, the costs of production of average farms on the Iowa State University records system was $46.82 per hundredweight, but dropped to $40.94 per hundredweight in 1993. As seen in Figure 11-1, these declines in costs are somewhat correlated with prices over the same period.

So what are the prospects for costs changes into the future? The direction is to continue downward. This is due to the fact that the industry as a whole continues to make rapid progress in

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production efficiencies, yet there is still far to go. These continued improvements for the industry as a whole include: continued improvements in feed efficiency; more rapid flow of animals through buildings; increased sow productivity; greater market coordination; and continued rapid restructuring of the industry.

**Models of Potential Future Prices**

In Figure 11-2, two alternative models projecting prices to the year 2005 are provided. The first model, labeled “Extrapolation” is an extension of the price patterns during the 1982 to 1994 period. There are two distinct features of this period, the downward trend and the cycle of prices roughly on a four-year pattern. Thus, the extrapolation model extends the four-year cycle into the future as well as a downward trend of about 50 cents per year.

The results of this model suggest that prices during the next 10 years would average about $41 per hundredweight at Midwest terminals. In reality it is likely that the downward trend will not be as sharp as was experienced in the 1982 to 1994 period. Our judgment is that a downward trend closer to 30 cents per hundredweight is more appropriate. This means that prices would average about $43 over the longer-term period.

The four year-hog cycle is expected to remain in the coming decade. Previous research has shown the hog cycle remains, but that the fluctuations in production (supply) are smaller than in past cycles and that the variation in prices over the cycle is also reduced. It is expected that reduced variation will continue into the next decade. The information in Figure 11-2, however, simply projects the cyclical trend of the 1982 to 1994 period.

The prices suggested by this model seem consistent with our anticipations over the next several years. Hog prices at terminals in the Midwest are expected to average about $40 in 1995, move to near $46 in 1996, $43 in 1997, before dropping back to near $40 in 1998.

The second model, shown in Figure 11-2, labeled “USDA Baseline,” is from USDA economists making long-term projections in early 1995. In contrast to the extrapolation model, the USDA economists expect the major restructuring now occurring in the industry to drive prices into the mid-$30s for both 1995 and 1996, with annual average prices not recovering to the $40 range until 1998.

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The view of the USDA economists is that the industry is moving to a vertically integrated industry much like poultry. Therefore, the next several years will be a difficult price period with mega producers and smaller producers battling for survival. However, in their view, much of this transition will have occurred by the turn of the century, and hog prices will then escalate with inflation and moderate increases in the costs of feedstuffs.\textsuperscript{78}

These models are sharply different. Which, if either, seems the most plausible? We believe that the extrapolation model is most accurate for the next several years. However, it is more likely to be in error into the early part of the next century. Our best guess remains that for the longer term, producers should think of prices averaging around the $43 level. It is also important to keep in mind that sharp variation from this forecast is possible. Sharp deviations are often caused by unforeseen events such as: weather difficulty which drives feed prices sharply higher; unforeseen inflation; or world economic, social, or political events that are not anticipated, yet will have major impacts on the pork industry.

\textsuperscript{78} “Long-Term Agricultural Baseline Projections, 1995-2005.” USDA World Outlook Board, Staff Report WAOB-95-1.
Carcass Evaluation Advancements

Carcass merit pricing uses quality attributes of the pork carcass, such as backfat and loin muscle depth or percent lean, to determine producer payments. Carcass evaluation includes technologies to measure these attributes in the pork carcass.

Carcass Evaluation Technologies

Visual appraisal and inspection of live animals have traditionally been used as a method of carcass evaluation. However, visual appraisal is inaccurate in most cases. On the other hand, carcass measurements such as backfat depth have been shown to be very highly correlated with carcass value and leanness.

There is no single consensus on what technology is most appropriate for a packer to use. Carcass evaluation technologies differ depending upon these characteristics: the degree to which the technology damages the carcass through penetration, the amount of carcass information required by the technology to estimate leanness, the speed and adaptability for on-line applications in existing packing plants, the use of the technology on the hot versus cold carcass, the use of the technology on the split versus whole carcass, the amount of potential operator error associated with each technology, and the tradeoff between the level of accuracy and cost of the technology.

There are four carcass evaluation technologies currently being used in the United States: ruler measurements, the electromagnetic scanner (also known as TOBEC®), optical probe (commonly called the Fat-O-Meater® or FOM®), and the ultrasonic sound gun. Rulers are used to measure backfat depth at the last rib on the carcass. Approximately 37% of all animals are evaluated using this technology, according to our May 1995 phone survey of the 21 largest packers purchasing over 95% of the hogs in the United States.

The FOM® provides an estimate of backfat and loin muscle depth at the juncture of the third/fourth from the last rib on the carcass (sometimes referred to as the 10th rib). Backfat depth is measured with a light-emitting diode and a reflectance detector that senses the light reflectance of the backfat and loin muscle. Approximately 37% of all animals are evaluated using this technology.

Electromagnetic scanning measures electrical conductivity of the carcass and distinguishes between lean and fat tissue on the hot carcass. The ultrasonic sound gun is similar in appearance to the FOM® and measures backfat at the same location. However, it does not penetrate the carcass as the FOM® does. Less than 1% of all animals are evaluated using these technologies. Figure 11-3 provides an illustration of the importance of these evaluation technologies.
Types of Carcass Merit Pricing

A live weight pricing program has long dominated the hog industry. Total value is determined by the live weight of the animal without regard to quality characteristics of the carcass. Early research recommended that this system be changed to incorporate carcass weight rather than live weight. Later research identified other carcass characteristics, such as backfat depth and percent lean, as possible measures for determining value.

The portion of animals purchased on carcass merit programs has increased dramatically in recent years, from 12% in 1984 to over 75%, according to our May 1995 survey. Much of this increase can be attributed to improved carcass evaluation techniques and to computer and data storage technology that enables packers to maintain carcass information on each producer’s hogs over time.

Carcass merit pricing programs can be placed in four major categories, which differ by the carcass information used to determine value. These programs are grid, grade and yield, component, and adjusted live weight pricing. Approximately 75% of all hogs are currently purchased on these four programs, while the remaining 25% are purchased on a strictly liveweight pricing system.

A grid pricing program is a matrix of premiums and discounts associated with different estimates of backfat depth, or percent lean and carcass weight. This is the most widely used program, and approximately 48% of all animals are purchased on this type of program.

An adjusted live weight pricing program uses cut-out information on previous loads of hogs to calculate an adjustment to the live or carcass weight price. The price is determined by the quality and composition of previous animals marketed. Approximately 20% of all animals are purchased on this program.

In grade and yield pricing programs, premiums and discounts are linked to grades which are determined by the carcass yield (carcass weight divided by live weight). Less than 5% of all animals are purchased on this system.

A component program uses the weights of the key primal cuts, such as hams and loins, to determine value. Less than 5% of all animals are purchased on this type of program. Figure 11-4 summarizes these percentages.

Table 11-1 provides a list of packers, the carcass evaluation technology in use at their plant, and the type of carcass merit program used in mid-1995.
### Table 11-1: Carcass Evaluation Technology and Carcass Merit Program by Firm

<table>
<thead>
<tr>
<th>Firm</th>
<th>Technology</th>
<th>Merit Prog.</th>
<th>Firm</th>
<th>Technology</th>
<th>Merit Prog.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBP, Inc.</td>
<td>Ruler</td>
<td>Grid</td>
<td>Hatfield Quality Meats</td>
<td>FOM®</td>
<td>Component</td>
</tr>
<tr>
<td>Smithfield Foods</td>
<td>FOM®</td>
<td>Grid</td>
<td>Clougherty Packing Co.</td>
<td>N/A b</td>
<td>N/A b</td>
</tr>
<tr>
<td>Monfort Pork Inc.</td>
<td>FOM®</td>
<td>Grid</td>
<td>Bryan Foods, Inc.</td>
<td>FOM®</td>
<td>Adjusted</td>
</tr>
<tr>
<td>Hormel Foods Co.</td>
<td>Ruler</td>
<td>Grid</td>
<td>Dakota Pork Industries</td>
<td>Ruler</td>
<td>Grid</td>
</tr>
<tr>
<td>John Morrell (Chiquita)</td>
<td>FOM®</td>
<td>Grid</td>
<td>Premium Pork Products</td>
<td>FOM®</td>
<td>Grade/Yield</td>
</tr>
<tr>
<td>Excel Corp. (Cargill)</td>
<td>FOM®</td>
<td>Grid</td>
<td>Worthington Packing</td>
<td>Ruler</td>
<td>N/A b</td>
</tr>
<tr>
<td>Farmland Foods, Inc.</td>
<td>FOM®</td>
<td>Grid</td>
<td>Fisher Packing</td>
<td>Ruler</td>
<td>Grid</td>
</tr>
<tr>
<td>Thorn Apple Valley</td>
<td>Ultrasonic</td>
<td>Adjusted</td>
<td>J.H. Routh Packing Co.</td>
<td>Ultrasonic</td>
<td>Grid</td>
</tr>
<tr>
<td>Indiana Packers Co.</td>
<td>FOM®</td>
<td>Grid</td>
<td>Iowa Packing Co.</td>
<td>N/A b</td>
<td>N/A b</td>
</tr>
<tr>
<td>Tyson Foods, Inc.</td>
<td>Ruler</td>
<td>Adjusted</td>
<td>Sioux Preme Packing</td>
<td>TOBEC®</td>
<td>Component</td>
</tr>
<tr>
<td>Lundy Packing Co.</td>
<td>FOM®</td>
<td>Grid</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Most of these firms also have a liveweight pricing program available to producers.

N/A denotes not applicable (all animals are purchased on a live weight basis).

### Fat-Free Lean Index

The National Pork Producers Council, in cooperation with the National Pork Board, the American Meat Institute, and Purdue University, has developed the Fat-Free Lean Index in order to help standardize information reported by different packers. This information includes hot carcass weight, backfat depth, and percent lean. The Fat-Free Lean Index is the percent lean in the carcass on a fat-free basis. The goal is to have all packers report the Fat-Free Lean Index on their kill sheets.

The calculation of percent lean may vary from packer to packer, depending upon how carcass weight (head-on vs. head-off) and backfat depth (third/fourth from the last rib vs. last rib) are recorded. Equations to convert to the Fat-Free Lean Index are available from the National Pork Producers Council by calling 1-515-223-2600 (extension 621) and asking for the User's Guide for the Fat-Free Lean Index. This information can help producers compare the percent lean from packer to packer.

### Comparing Various Packer Programs

Variation in carcass merit programs among packers has made it difficult for producers to compare potential revenues that would be received. This is one reason that the Fat-Free Lean Index was developed. The Fat-Free Lean Index provides a means of taking the measurements provided by each packer and converting them to a percent lean index which can be directly compared with that of other packers. While this gives a reasonable ability to compare the percentage of lean from packer to packer, it still does not provide an estimate of the revenue which would be generated by each carcass. Based upon their individual carcass measurements and end-uses for the product, packers have different payment systems.

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80 Jekanowski, M.D., J.T. Akridge, P. Gould, and J.C. Forrest. “Standardization of Pork Packer Kill Sheet Information.” Staff Paper No. 94-6, Department of Agricultural economics, Purdue University. 1994.
Other factors which make comparison of potential revenues among various packers difficult are the base prices each packer is using and their standard yields. For example, if one packer is using a $45 terminal base price with a 74.5% standard yield, the base price of a pound of carcass would be $60.4 (45/745). Another packer might employ a 74% standard yield and a base price of $60.80 per pound. It is not immediately obvious which packer’s payment criteria will net the highest revenues for the hog.

It is important to realize that substantial variation in revenues can occur if hogs are marketed at various packers. There are several reasons why this variation exists. Most packers have different intervals of carcass weight and backfat, which are dependent upon the level of detail in the carcass merit program. For example, one packer’s buying program might use 30-pound intervals, where premiums or discounts are the same for the entire 30 pound range (for example 230 to 260 pounds). Other packers use 10-pound increments, where premiums/discounts change every 10 pounds. Consequently, knowing where these break points for live weight and backfat depth occur for a given packer’s buying program becomes important when sorting and marketing animals.

Premiums and discounts reflect a packer’s end-use for the carcass. The amount of further processing that will be done on the carcass is also important. For example, a packer with a strong market for spiral hams may desire animals with large hams. Thus, opportunities for increasing the value that a packer can add to a carcass through further processing is also reflected in the premiums and discounts. Hence, variation in revenue occurs through the potential end-use of the carcass.

Variation in revenues might also result from the yield conversion factor used to help determine a carcass price. Some packers use a yield figure that corresponds to historical plant averages. These yield figures reflect geographical distances from the plant, the amount of “gut fill” by producers, and plant cutting averages. Other packers use the producer’s historical yield or the yield of that lot of animals to help determine producer payments. Thus, variation in revenues can also result from factors that are unique to a plant’s geographic location and environment.

To illustrate this point, Table 11-2 provides estimates of revenues from four different hogs using current programs from four different packers. Carcass weight is assumed to correspond to a yield of .745. These animals are assumed to be produced by the genetics used in both the 150 and the 300 sow systems from earlier chapters, and are somewhat superior to the current industry average. There are two listings in Table 11-2 for barrows and two for gilts, which represent the same genetics, but sold at different weights. For example, Barrow1 assumes selling at a liveweight of 245 pounds, while Barrow2 represents the same animal, but sold at a weight of 260 pounds.

Four packer buying programs were chosen to show how revenues may be different. Packer A uses a FOM® to measure backfat depth and pays premiums based on percent lean with a base percent lean of 47 to 49%, while Packer C has a base percent lean of 49%. Packer B and D use a ruler to measure backfat depth and pay premiums based on carcass weight and backfat depth. The
base percent lean is dependent upon different measures of carcass weight and backfat depth and varies between the packers.

Variation in revenues among these four packers amounts to $2 to $3 per head. Note that the difference in the range of revenues is more variable for the 245 pound Barrow1 ($3.29) and Gilt3 ($3.65). In contrast, the difference in the range of values is less for the 260 pound Barrow2 ($2.43) and Gilt4 ($2.35). What might make the variation on the light animals greater? Over the past 10 years, average slaughter weights have increased from 244 to 255 pounds. The variation in revenues at 245 pounds could be caused by these packers using discounts to encourage heavier animals.

<p>| Table 11-2 Four Representative Animals (see Specifications, Chapters 5 and 6) |
|---------------------------------|----------------|----------------|----------------|</p>
<table>
<thead>
<tr>
<th>Packer</th>
<th>Barrow</th>
<th>Gilt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1(^a)</td>
<td>2(^b)</td>
</tr>
<tr>
<td>A</td>
<td>$114.08</td>
<td>$118.64</td>
</tr>
<tr>
<td>B</td>
<td>$113.17</td>
<td>$117.00</td>
</tr>
<tr>
<td>C</td>
<td>$111.72</td>
<td>$116.21</td>
</tr>
<tr>
<td>D</td>
<td>$115.01</td>
<td>$118.56</td>
</tr>
<tr>
<td>Maximum Difference</td>
<td>$3.29</td>
<td>$2.43</td>
</tr>
</tbody>
</table>

\(^a\)Animal 1 has 1 inch of backfat at the last rib, weighs 245 pounds, and is 51.11% lean as estimated from the FOM® (Fat-Free Lean Index is 46%).

\(^b\)Animal 2 has 1.15 inch of backfat at the last rib, weighs 260 pounds, and is 49.44% lean as estimated from the FOM® (Fat-Free Lean Index is 44.5%).

\(^c\)Animal 3 has .90 inch of backfat at the last rib, weighs 245 pounds, and is 53.3% lean as estimated from the FOM® (Fat-Free Lean Index is 48%).

\(^d\)Animal 4 has 1.00 inch of backfat at the last rib, weighs 260 pounds, and is 52.00% lean as estimated from the FOM® (Fat-Free Lean Index is 46.8%).

\(^e\)The live weight price is $45.00 per cwt, while the carcass price is $60.00 per cwt. Yield (carcass weight divided by live weight) is assumed to be 74.50%.

The genetics used in the 600 and 1200 sow systems in earlier chapters are even leaner and estimated revenues are provided in Table 11-3. The variation in estimated revenue is much wider for the 260 pound barrow ($4.39) and gilt ($4.23), whereas the difference in the range of prices is less variable for the 245 pound barrow ($1.57) and gilt ($2.64). The variation in revenues at heavier weights can be attributed to the carcass weight intervals employed by these packers. At 260 pounds, the carcass weight is heavier for these animals, which enables them to receive higher premiums for the lower backfat depth and increased carcass weight. Note that the live weight remains the same, but now the higher yield and increased pounds of lean mean higher revenue for these animals.
Table 11-3: Four Representative Animals (see Specifications, Chapter 3 and 4)

<table>
<thead>
<tr>
<th>Packer</th>
<th>Barrow 1a</th>
<th>Barrow 2b</th>
<th>Gilt 3c</th>
<th>Gilt 4d</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$118.97</td>
<td>$126.26</td>
<td>$121.27</td>
<td>$128.70</td>
</tr>
<tr>
<td>B</td>
<td>$117.72</td>
<td>$130.65</td>
<td>$118.63</td>
<td>$130.65</td>
</tr>
<tr>
<td>C</td>
<td>$119.29</td>
<td>$126.42</td>
<td>$120.40</td>
<td>$127.60</td>
</tr>
<tr>
<td>D</td>
<td>$119.29</td>
<td>$126.42</td>
<td>$119.29</td>
<td>$126.42</td>
</tr>
<tr>
<td>Maximum Difference</td>
<td>$1.57</td>
<td>$4.39</td>
<td>$2.64</td>
<td>$4.23</td>
</tr>
</tbody>
</table>

aAnimal 1 has .72 inches of backfat at the last rib, weighs 245 pounds, and is 57% lean as estimated from the FOM® (Fat-Free Lean Index is 51.3%).
bAnimal 2 has .80 inches of backfat at the last rib, weighs 260 pounds, and is 57% lean as estimated from the FOM® (Fat-Free Lean Index is 51.3%).
cAnimal 3 has .65 inches of backfat at the last rib, weighs 245 pounds, and is 58.9% lean as estimated from the FOM® (Fat-Free Lean Index is 53%).
dAnimal 4 has .70 inches of backfat at the last rib, weighs 260 pounds, and is 58.3% lean as estimated from the FOM® (Fat-Free Lean Index is 52%).
eThe live weight price is $45.00 per cwt, while the carcass price is $60.00 per cwt. Yield (carcass weight divided by live weight) is assumed to be 75%.

These examples provide several points for producers to consider. First, revenue comparisons between packers remains difficult. The best advice is for producers to track variables such as percent lean on their kill sheets via the Fat-Free Lean Index and backfat depth. If they have several alternative packers, this Index can help provide information for marketing and sorting.

Second, there can be substantial differences between the values various packers pay for a given animal. These differences may be caused by the plant’s historical distribution of hogs or the yield factor being used. Producers may wish to talk to the hog buyer or the packer’s pork procurement representative to determine how their animals fit into packers’ needs.

Third, leaner animals have increased revenue potential. These leaner animals may be more expensive, with respect to genetic costs. However, the increased genetic cost of the animal likely will be more than off-set by better feed or lean efficiency. If producers are able to split-sex feed and market barrows and gilts separately, finding the right carcass merit program for marketing becomes more important. In addition, note that there are no scheduling or other delivery premiums included in these two tables, which may be possible to receive at various packers.

As the industry shifts more towards pricing carcasses rather than live hogs, greater standardization may occur. However, at this point producers need to know the type of animals they produce by obtaining as much cut-out data as possible. Then, they must begin to identify packer carcass programs and learn how payments are made. Finally, matching their animals’ unique carcass characteristics with packers who provide the highest revenues net of marketing costs, such as transportation, will help identify the best location for their hogs.

Producers also should remember that carcass programs at a particular packer can, and are, likely to change. Carcass programs have been in place for over 30 years, but are now rapidly
evolving. This simply means that producers will need to stay aware of changes and reevaluate their marketing program on a periodic basis.

**Revenue Advantages of Carcass Merit and Improved Genetics**

The hogs used as examples in the last section came from the genetics specified for the 150/300 sow systems and for the 600/1200 sow systems in earlier chapters. Two questions are critical to evaluate. What are the revenue enhancements from use of carcass merit programs versus live pricing programs and what are the revenue enhancements from improvements to the superior lean genetics of the 600/1200 sow systems?

Table 11-4 provides the revenue per animal for liveweight versus carcass merit programs at two weights and for genetics in the smaller and larger sow systems. Several points are important to producers. First, if they have superior genetics, carcass merit programs are an important way to capture more of the “true value” of their animals. This can be seen by the premiums that would be received on carcass merit pricing programs versus the liveweight price. For example, compare the liveweight price of $117 for the 260 pound animals using the 150/300 sow system genetics with the $119.41 carcass merit value for the same animals. The merit programs capture an added $2.41 of value ($119.41-$117.00).

When genetics are improved to the standards of the 600/1200 systems, the average value per head increases from $117 to $127.89, or $10.89 per head. Thus, the more superior the genetics, the greater the incentive to use carcass merit programs.

How much is the superior genetics worth in the 600/1200 sow systems compared to the 150/300 sow systems? Using the base live price of $45 and other assumptions in this analysis, the difference is $8.48 per head for the 260 market weights ($127.89-$120.19). Thus, on 260 pound market hogs at $45, the superior genetics of the 600/1200 sow operation amounts to $3.26 per live hundredweight. It should be noted that an upgrade to these genetics and carcass performance levels probably is not likely. Consequently, $1.50 to $2.00 per hundred weight is more feasible, and achievable. This would mean increasing percent lean about 3%.

<p>| Table 11-4: Revenues Per Animal with Various Pricing Programs and Genetics&lt;sup&gt;a&lt;/sup&gt; |
|-----------------------------|----------------------------|-----------------------------|----------------------------|</p>
<table>
<thead>
<tr>
<th>Pricing Method</th>
<th>150/300 Genetics</th>
<th>600/1200 Genetics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liveweight</td>
<td>245 lb. $110.25</td>
<td>245 lb. $110.25</td>
</tr>
<tr>
<td>Carcass Merit</td>
<td>260 lb. $117.00</td>
<td>260 lb. $117.00</td>
</tr>
<tr>
<td></td>
<td>245 lb. $119.36</td>
<td>245 lb. $119.36</td>
</tr>
<tr>
<td></td>
<td>260 lb. $127.89</td>
<td>260 lb. $127.89</td>
</tr>
</tbody>
</table>

<sup>a</sup>Based on $45 percent live price and $60 percent carcass price in all cases. The carcass merit values are the average of the four packer programs shown in the previous section, and assume and-half barrows, and one-half gilts.
Provide Economic Value: Expect Rewards

It is clear from this discussion that marketing is going to change as rapidly as production. Remember, in a well functioning market system, participants should be paid according to the economic value they contribute to the process. Therefore, in marketing, those who provide “real” economic value should expect to be rewarded.

Real economic value comes when higher yielding carcasses with larger percentages of high value pork products are provided. Economic value may be provided by meeting certain consumer requirements and is provided when the variability in animals is reduced. Economic value can also be provided when larger loads of animals can be handled at one time. Value is also provided when packers can reduce the labor required to trim excess fat or procurement costs.

The responsibility of adding economic value in our pork system lies in equal measure with input suppliers, producers, and processors. From input supplies, expect coordinated efforts to provide the new technology, financing, and understanding of how to apply the technology. The processor is responsible for cost efficiency, market-location, and development, as well as innovation in pork products and finding ways to add value to pork products.

Pork producers today are critical components of a pork delivery system. Yet, producers are interdependent with input suppliers and processors. High quality, nutritious pork cannot be delivered to consumers without all segments of the industry. Thus, even today, pork producers are not independent, but rather must depend on other segments, just as other segments must depend upon hog producers. Perhaps the best hope for continued “independence” is to recognize the “dependence” on other segments. Recognition of dependence is a necessary step in the transitions to the pork industry of the 21st century. The ultimate goal of the pork system we all work within must be to continuously improve the product, the performance, and the profit.