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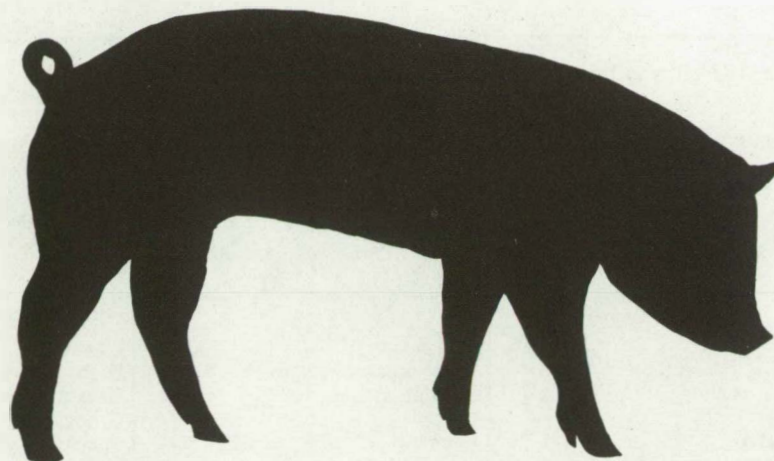
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Hogs Are Now Longer and Leaner

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More efficient production practices and changing consumer preferences have encouraged hog producers to raise leaner animals. Hogs today have more muscle and less fat than in the 1960's. More importantly, they deliver a greater amount of lean pork to the live pound.

A 1982 Economic Research Service (ERS) study documents the significant changes that have occurred in hog production between 1968 and 1980. Using a nationwide survey, ERS researchers found that in 1968, only 8 percent of slaughter hog carcasses qualified for USDA's leanest, meatiest grade—U.S. No. 1. By 1980, almost 72 percent made the top grade (table 1). In the same period, average carcass length increased by a half-inch and average backfat thickness decreased by a quarter-inch (table 2).



1968, it had fallen to 5.5 pounds. By 1980, per capita lard consumption had dropped to 2.4 pounds—one-third of the 1960 level. (These figures exclude lard used in margarine, shortening, and non-food products.)

Changing consumer preferences have influenced the demands of retailers, processors, and meatpackers. Farmers responded, in turn, by breeding a leaner hog.

Grades Encourage Leaner Hogs

USDA's grading system, which categorizes products with similar attributes, facilitated the changes in hog production. Grades provide a common "language" for communicating to producers the animal characteristics desired by consumers. They also provide a guide for choosing breeding stock and a way for producers to measure the efficiency of

various production, feeding, and marketing programs by monitoring the quality of hogs produced.

USDA grades indicate the approximate value of the carcass based on lean meat yield (see insert). Therefore, they make it possible to buy and sell pork carcasses on the basis of their worth. In this way, they can affect the type of animal produced.

Standardized grades can help packers determine value differences in the market hogs they buy and the pork they sell. Higher returns provide an incentive to produce leaner hogs.

A New Grading System is Proposed

USDA is responsible for reviewing the grading system and revising it as necessary to reflect improvements made in production and marketing. The current grading standards were developed in 1968

Table 1. More Hogs Make Top Grade

U.S. Grade	1967-68 ¹	1980 ²
	Percent	
1	8.2	71.7
2	42.1	24.2
3	35.7	3.7
4	12.2	.3
Utility	1.8	.1

¹U.S. Department of Agriculture, *Improvements in Grades of Hogs Slaughtered From 1960-61 to 1967-68*, Marketing Research Report No. 849, May 1969. ²U.S. Department of Agriculture, *Improvements in Grades of Hogs Marketed*, ERS-675, February, 1982.

These changes are the result of decisions by consumers, packers, and producers. Also involved was USDA's grading system which provides uniform standards for relating the type of animal produced to the uses of the many end products.

Consumers Want Less Fat

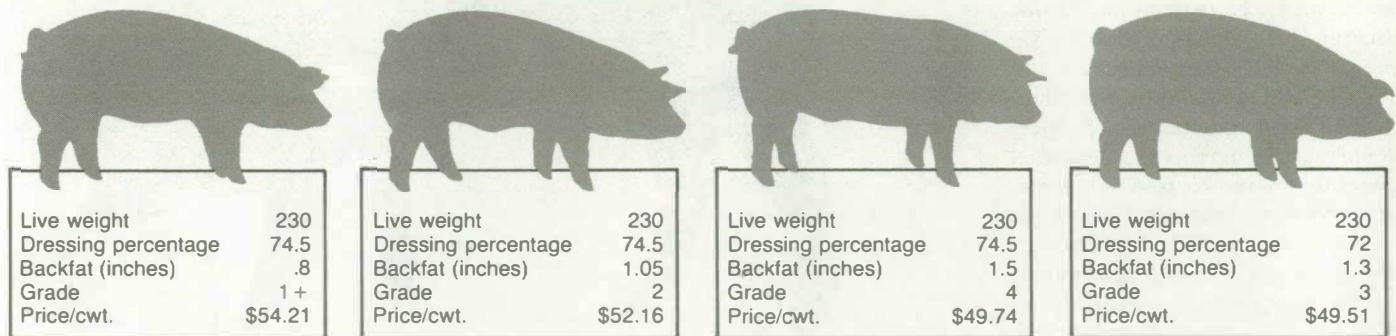
In the last 20 years, preferences for livestock products have changed. Consumers now want leaner pork. In addition, the demand for animal fats for other products has declined rapidly because of more plentiful vegetable oil substitutes. In 1960, the average American diet included 7.5 pounds of lard a year. In

Table 2. Hogs are Longer and Leaner

U.S. Grade	Average carcass length		Average backfat thickness	
	1967-68 ¹			
	Inches			
1	30.4	31.0	1.51	1.22
2	30.3	30.8	1.79	1.56
3	30.4	30.8	2.13	1.94

¹U.S. Department of Agriculture, *Improvements in Grades of Hogs Slaughtered from 1960-61 to 1967-68*, Marketing Research Report No. 849, May 1969. ²U.S. Department of Agriculture, *Improvements in Grades of Hogs Marketed*, ERS-675, February, 1982.

Figure 1. Price Differences Under a Grade and Yield Program¹



¹Dressing percentage is defined as hot carcass weight divided by live weight. Standard yield for a 230-pound hog in this packer's program is 72.7 percent. Grade is based on backfat thickness. However, lack of muscling may decrease the grade. Price/cwt. assumes a base live bid price of \$50/cwt.

Source: Pork '84, "High Yield Won't Pay Off if Hogs are Fat," May 1984, p. 29.

and reflected industry progress since 1955.

The ERS study reveals that in 1980, 96 percent of the hog carcasses were graded U.S. No. 1 and 2. Some of the most significant variations in terms of the total hog population, then, are not identified by the present grading system because such a large proportion of the hogs are graded No. 1. Grades specify only minimum standards, leaving the top grade open-ended.

An examination of pork carcasses found that those graded U.S. No. 1 had yields of 53 percent to 70 percent. The average yield for U.S. No. 1 was 59 percent; 55 percent for U.S. No. 2; 50 percent for U.S. No. 3; and 44 percent for U.S. No. 4. The 17-percent range in U.S. No. 1 yields is larger than the difference among grades, indicating refinement of the standards may be needed.

Price premiums based exclusively on the existing USDA grade standards would give the same price to producers whose animals meet minimum U.S. No. 1 standards and those whose animals exceed the standards. Producers raising leaner, meatier hogs expect to get more money for them. An ideal grading system should classify together products with

uniform characteristics determining their values, so that price can reflect differences in value and provide incentives for improvement.

USDA has proposed a new grading system based on the continuing trend toward leaner hogs over the past 16 years. Under the proposed system, one backfat measure would be used instead of the current average of three. Hog carcasses with less than 1.0 inch of backfat at the last rib would grade U.S. No. 1, compared to 1.6 inches or less under the current system; less than 1.25 inches, U.S. No. 2; and less than 1.5 inches, U.S. No. 3.

The proposal has been published in the Federal Register and comments in response to the notice were evaluated and summarized. They will be reflected in a document currently being prepared which will be resubmitted to the Federal Register for further public comment.

Many Packers Have Their Own Grades

Most packers have developed their own grading system which substitutes for USDA's. One packing company has standards similar to the new system proposed by USDA. The purpose is to encourage

the marketing of lean hogs with a minimum amount of fat by offering price incentives—more would be paid for lean hogs but less for hogs with more fat (figure 1).

Under the packer's program, backfat thickness is measured at the last rib and the amount of muscling in the entire carcass is taken into consideration. Presently, about 53 percent of the hogs purchased by this packer are under the system, with only about 20-35 percent of those hogs receiving the two highest grades.

Nationwide, only about 14 percent of all slaughter hogs are sold under a grade and yield system where producer compensation is based on actual carcass weight and grade. Instead, most hogs are sold after visual inspection of the live animal, though buyers still make grade and yield adjustments. In some cases, substantial inconsistencies can occur between live prices and the carcass value of pork.

Steps are now being taken by USDA to provide a grading system which better identifies value differences among pork carcasses. These value differences should be reflected, in turn, in price differences that encourage farmers to produce leaner hogs.