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RESEARCH AIMED AT INCREASING PRICE EFFICIENCY

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The marketing system for farm products serves two broad purposes: (1) To add form, time, place and possession utilities to raw farm products. (2) Through the various mechanisms of exchange to allocate these commodities among the buyers and the return from them among the sellers. This gives expression to consumers preferences as guides in the use of productive resources in both primary production and marketing. The efficiency of the marketing system must ultimately be evaluated in terms of the effectiveness with which these purposes are served and in the relationship between the consumption utility created and the resources used in its creation. In short then, our ultimate objective for the marketing system may be assumed to be the maximization of consumption utility. To accomplish this objective the system must have operational and price efficiency. These two efficiencies are not independent.

This discussion is concerned directly with the second of the two broad purposes of agricultural marketing, e.g., with the problem of price efficiency. These two efficiencies can in principle be isolated for separate study. We can inquire, given the existing structure of resource inputs, what is the efficiency of the marketing system or segments of it, in terms of consumption utility, in relation to different degrees of price efficiency; and how can this price efficiency be increased. We must remember, however, that "improvements" in price efficiency cannot be finally evaluated without consideration of their effects upon operational efficiency and that changes in combinations of resource inputs may invalidate the findings of a price efficiency study, since they alter the assumptions that underlie it.

The efficiency of the pricing system is dependent on several economic and institutional factors. First, many products are sold in an imperfect market. Each segment of the market has its own degree of imperfection. The monopoly elements that may affect the pricing efficiency are, (1) market sharing, (2) price leadership, (3) bilateral monopoly, (4) price discrimination and (5) product and service differentiation.

Another factor affecting the price efficiency is the degree of knowledge and rational behavior existing in the market. Knowledge is dependent on the ability of the buyers and sellers to determine physical differences in the product for sale, the availability of a market language (grade standards) to accurately describe the product, and the degree of accuracy with which information (market news) can be disseminated.

The customary method of trading or the physical basis of sale can also contribute to price inefficiency. Producers are sometimes forced to sell their commodities without consideration or knowledge of quality and under conditions where time and location force them into a disadvantageous position. Thus, the pricing system cannot accurately guide them in their production and marketing plans. These undesirable methods of exchange are present because of tradition, habit and custom. Often there exists no alternative method. On the other hand, alternative methods of exchange may exist but technical and physical developments limit the acceptance of the alternative. An example of this is the lack of accurate and accepted grade standards.

Another factor limiting the efficiency of the pricing system is the amount of control exerted in the market system by social, political, and institutional agents such as government.

There is a need for market research that will help to increase price efficiency without reducing operational efficiency. There is also a need for coordination of research in related physical fields with that carried on by the agricultural economist. It is important that we examine the factors causing price inefficiency first to find what these factors are and, second, to determine in what areas research may be most fruitful in increasing price efficiency.

In our economy free enterprise is often associated with bigness. We find evidence of "economies of scale" and more efficient use of resources relative to output. We also find that some price efficiency is often sacrificed for physical efficiency. We know that some large firms have it in their power to manipulate prices, particularly in the short-run. To eliminate bigness is not always justified economically but research aimed at other factors affecting price efficiency may limit the ability of these large firms to manipulate prices. For example, it appears that research aimed at increasing knowledge, or research that will show the relative merits of different methods of sale may contribute much to pricing efficiency. The remainder of this discussion will be centered on these two points.

As an example, we can point out that one common practice in our markets is to disregard quality of agricultural products at or near the farm level. Hogs of a given weight are sold at an average price regardless of quality; butter is often bought from local creameries at an average price; eggs are bought at the farm level on a current-receipt basis. At the same time, consumers are willing and do pay a price differential for quality differences at the retail level.

What is the reason for this general disregard for quality at the farm level? To answer this question, let us consider the case of hog marketing. In the marketing of hogs, the prices paid to producers differ mainly with the variation in the weight of the live hog. There is little or no sorting or pricing on the basis of other attributes which are indicative of quality. Experimental evidence 1/ indicates that under the present live buying system, hog buyers cannot accurately estimate carcass quality and dressing percentage. Insofar as the weight of the hog fails to account accurately for the various quality attributes and the corresponding value differences, the pricing mechanism in the market does not pass on to the producer the consumer's desire for quality. This prevents optimum 2/ production of fat and lean cuts and the optimum production of the quality of cuts. All animals are discounted the average amount of loss due to fill and physical defects. The producers do not know the likely shrinkage of his hogs for various distances to market. Because of this the competitive bargaining position of the producer is weakened. One result is an overlapping of

1/ The North Central Livestock Marketing Research Committee, adopted this study as a regional project in 1947.

2/ In the long run it would be possible to equate the marginal rate of transformation between specific grades of pork (and any other product) with the marginal rate of substitution between specific grades of pork (and any other product) for the community which is consuming them.

trade areas and an erratic movement in the price surface. Producers tend to transport their hogs over longer distances than are necessary. The weakened bargaining position of the producer also may result in a duplication of marketing functions and a waste of marketing resources.

Assuming that the above criticism of the present method of marketing hogs is justified then, what alternative methods would theoretically increase the efficiency of the pricing system? It is apparent that the value of the component parts of the hog carcass and hence, the carcass value, can be determined in the packing plant. Questions concerning fill, pregnancy, disease and bruises can be definitely answered at the time of or shortly after slaughter. The question then arises as to why animals are not sold as carcasses? Theoretically, the carcass system appears to have merit as an alternative, but questions concerning the economic desirability and physical practicability of the carcass method of sale must first be answered.

Some of the technical and economic problems that must be investigated include: (1) the possibility of developing accurate and acceptable carcass grade standards; (2) the most practical and desirable method of identification, weighing and grading of hogs; (3) the effect of delayed settlement to producers; (4) the most acceptable way to deal with shrinkage, bruising and disease; (5) the persistence of price differentials between the grades during the introductory period and after a carcass system has been entirely accepted; (6) the direct cost of marketing hogs by carcass weight and grade compared with the present live weight method of marketing; (7) the increased indirect cost to society such as; costs of market reorganization, monopoly costs, and costs of educating producers and meat processors.

The example of price inefficiencies and problems involved in the marketing of hogs is presented here only as an illustration of the type of problems that researchers in the marketing field must answer before pricing efficiencies can be increased. Studies aimed at determining the cause of price inefficiencies for other agricultural products should be initiated. Studies of this type may entail an evaluation of the cause of the inefficiency, complete market reorganization, and the adjustments needed to bring about the reorganizations. On the other hand, similar investigation for other products may indicate that only minor technical and economic adjustments are needed as, for example, the need for more accurate and acceptable grade standards, the organization of producers to equate bargaining power, more complete and accurate ways of disseminating market news, adoption of new known techniques of handling a commodity at some point in the marketing process or just simply the education of the producers and market agents to quality characteristics desired by consumers.

There is abundant opportunity for applying imagination and ingenuity in developing price efficiency analyses as valuable tools in marketing research. It is hoped that this discussion may stimulate the thinking of this panel group in the direction of further discussion of ways and means of increasing price efficiency in the marketing of agricultural products.