

Toward Regularized Bargaining
In Agriculture

By

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September 1971

No. 45

Statement
Presented before the
Subcommittee on Domestic Marketing and Consumer Relations
House Agriculture Committee
September 29, 1971

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American agriculture is in a process of rapid change. It is adopting technology more rapidly than most other parts of the economy. This is reflected in the higher rate of rise in productivity per worker in agriculture. Over the last decade, farm output per worker increased by 5.7 percent annually compared to 2.6 percent for other enterprise. ^{1/} As a part of this change, farms are becoming fewer, larger and more commercial. In addition to changes on the farm, the marketing system is getting more complex. It contains powerful, organized forces. The consumer is less responsive to price and more dependent on the advertising actions of marketing firms.

The traditional coordinating system which related smaller farms, smaller marketing firms and hungry consumers no longer fits the high performance commercial system of today. In the subsistence world of the past, price was established in a free market and served to effectively interrelate the wants, needs and capabilities of everyone. Since World War II, we have been gradually and steadily moving toward systems which coordinate through quantity discipline as a replacement of the "coordination through price" tradition. Market orders for dairy and specialty crops as well as the commodity programs are examples.

Congress is faced with making another decision in this evolution. Should farmers be provided a regularized basis for collectively bargaining for prices and other terms of trade? This decision should be based on a clear understanding of:

1. The needs of a technically complex agricultural production system.
2. The consequences of various policy alternatives.

I will speak briefly to both points.

The Imperatives of Technology

Although we live with immense technological complexity, little organized thinking has been committed to the care and feeding of technology. We know what soil type, fertility level, drainage conditions and insect protection will make grapes thrive, but what conditions are required to encourage the deployment of more sophisticated and productive technology? The writings of Professor J. K. Galbraith are probably most relevant to this

^{1/} Economic Report of the President. February 1971.

question. ^{2/} "Technology means the systematic application of scientific or other organized knowledge to practical tasks." Six consequences of this application can be identified. The accommodation of these consequences gives a rudimentary plan for the care and feeding of technology. The consequences are as follows:

1. An increasing span of time separates the initial planning from the completion of any task.
2. There is an increase in the capital that is committed to production aside from that occasioned by increased output.
3. The commitment of time and money tends to be made ever more inflexibly to the performance of a particular task.
4. Technology requires specialized manpower.
5. The inevitable counterpart of specialization is organization. More even than machinery, massive complex business organizations are the tangible manifestation of advanced technology.
6. From the above consequences comes the necessity for planning and coordinating.

How can we accommodate these imperatives of technology? We have sponsored research to make organized knowledge available to agriculture with public funds. We are grateful to have an agriculture so productive that feeding and clothing ourselves requires only a small share of our human resources. Much further progress is possible through application of the more advanced technology now being developed. But we must provide an environment conducive to deployment of technology on farms all across the 50 states.

Some of the imperatives of technology are accommodated in straightforward manner. For the most part, the higher levels of knowledge and training required by the specialized manpower are provided by both educational and commercial institutions. The need for greater amounts of capital has been generally accommodated by cooperative lending agencies developed or influenced by government action which are designed specifically to meet the needs of farmers. Capital needs in the future, will surely tax even this special system. The inflexibility of much expensive equipment (for example, the grape harvester costing about \$30,000 and useful only during the harvest of this one crop) tends to aggravate the need for capital. The increasing time span is probably less important in agriculture than other industries although developing markets at home and abroad is a long term commitment.

The need for more complex organizations among farmers and the necessity for planning are perhaps more subtle imperatives of technology, but no less important. Where agricultural production is characterized by the most

^{2/} See J. K. Galbraith, The New Industrialized State, Houghton-Mifflin, Boston, 1967, Ch II. The consequences of technology presented were taken directly, largely in his words.

advanced technology, such as the broiler industry, it has been carried into adoption by massive organizations. These large organizations get sufficient stability to plan complex technical investments through their diversification across many industries. The transfer of agricultural planning and production into the hands of massive commercial firms is one way to accommodate the needs of a technically complex system. Is this the only way? Can other organizational arrangements accommodate this need for orderly planning?

Instability And Planning Production

In the process of considering alternative organizational possibilities and assessing their ability to accommodate the planning function, it is necessary to clarify the need for planning. Planning any long term commitment involving heavy capital investment requires conditions of stability. Instability of quantity sold, prices and return on investment is the enemy of technology. The farmer's willingness to upgrade his productivity through purchase of more or more sophisticated inputs is affected by the stability of returns. The banker's willingness to make the loan is affected by his expectation of the regularity of the farmer's ability to repay. So, it seems clear that planning the more technical agriculture of the future and its organizational needs must relate to possibilities for creating relative stability in output and prices. Can we design organizations to emphasize stabilizing influences?

The causes of instability of output include poor production planning and the natural variability of biological processes and weather. It is possible that organizations could be designed to improve production planning. Instability caused by weather cannot be eliminated by organizations although pooling or non-harvest strategies available through market order type organizations can reduce the seriousness of this source of output variation.

Price variation is often seen as a direct effect of output variation. This position, however, merits further elaboration. In past times, consumers' responses to small price changes would stimulate the consumption of surpluses and ration effectively in times of shortage. The higher incomes of consumers and the mixing of staples into the highly manufactured convenience foods have blunted this important response. Consumers often do not perceive any consequences of even rather large price changes at the farm level. Therefore, a surplus hangs in the market and depresses price more than it would in times past. Whereas both farmer and consumer used to be coordinated by price, now the farmer has the burden of doing all the coordinating. We need to give him better and more versatile organizational powers to fulfill this responsibility. If we don't the chaos of unstable prices will deprive society of the abundance which more advanced technology can provide.

An Illustration Of Technical Change

An example from the apple industry is illustrative. The production-harvest-processing sequence of operations is currently geared to hand harvest. Since hand harvested fruit is storable, the processing system is designed to operate several months. In the early processing season, apples are delivered

direct from harvest to the processing operation. But the processing operation continues to use apples from storage through mid-winter.

A production-harvest-processing sequence could be adopted which would involve mechanical harvesting. This transition would involve substantial changes at all levels. On the farms, the orchard would need to be arranged differently to accommodate moving large machinery. The optimum tree size might change along with pruning patterns. Often grading and leveling of terrain is involved. The harvest part of the sequence would require a shift from investment in migrant housing and attendant facilities to expensive equipment.

Perhaps the most extensive transition is at the processing level. Mechanically harvested apples are not storable for several months as it is unlikely that they can ever be harvested as bruise-free as hand harvested fruit. The bruises have little effect on the final processed product, if processing occurs very soon after harvest. This problem is similar to the experience in mechanically harvested tomatoes. It was accommodated by dividing the processing operation into two phases. The fruit is first taken from harvest into an operation which cleans, peels and prepares a semi-processed product which is storable. The second phase moves product from the storable semi-processed form into final consumer packages. This processing sequence must have high capacity in phase one while the canning machines in phase two can run leisurely all winter as before.

This new sequence, although under study, has not been adopted. The organized knowledge is available from research in public agencies and experience in private firms. Good cost estimates are not available, but it is likely that the mechanical system will be more efficient as was the case in other crops. Another aspect of the problem is the matter of migrant labor. As the standard of living has risen throughout the entire economy, society is increasingly concerned with the economic and social well being of migrant workers. Efforts are being made to take the complex medical, recreational, religious and educational services and institutions into the orchards. While we might all agree that equal access to these things is everyones right, carrying them to the orchard will prove so expensive that the cost advantage of the mechanical sequence will inevitably increase.

What is the outlook for adopting the new technology? Despite a level of need bordering on crisis, the outlook is not good. The industry is depressed. For two years the cooperation of man and nature has produced a slight surplus. It comes at the time when European and Australian orchards are beginning to harvest the fruits of improved production technology. Consumers don't want to change their affluent life style just because the production sector is out of control. So, for the second year in a row, the value of the processing apple crop is very low.

This not only hurts farmers--processors are also hurt. The powerful distributors (food chains and buying groups) know there is a surplus and prices at wholesale will be driven low. They have no alternative but to slash them down because they must stay competitive with other distributors. Even

though farmer prices may vary widely, processors have fixed costs. Labor rates do not lower just because there is a surplus output. Processors have had great difficulty in New York state during the past two years. Many have moved away or closed. It is little consolation to point out to processors or producers in this situation that on the average over the last 10 or 15 years they aren't doing too badly.

The potential technical change here has substantial economic (and perhaps social) advantages. Society may have access to these advantages only if it takes steps to provide an environment sufficiently stable to enable the careful planning and significant investment required by advanced technology. In present conditions neither processors nor producers are anxious or able to make these investments. Bankers cannot ignore the failure rate of processors when considering an investment for building a new processing sequence at today's prices and interest rates. Instability is the enemy of advanced technology.

Seeking a more stable industry environment requires taking some marketing strategy alternatives on an industry basis. Although it is very important, individual producers have no effective link or connection between their individual planning decisions and industry output. Although all may perceive the need for industry discipline it cannot result from individual decisions. It requires collective decisions and actions. Policy to enable collective decisions on the part of farm industries is most important.

Policy Alternatives

Against this background identifying the character of needs affecting our modern complex agriculture, we can proceed to look at policy alternatives.

Policy Concerning Stabilizing Influences

While there are many types of stabilizing machinery, I think the market order mechanism has the potential for being very useful to agriculture in the years ahead. It blends the producer influence of the "commodity advisory committee" and power of government in a way that has more flexibility than the more autocratic government commodity programs. The usefulness of market orders in the past has been limited by the massive organizing problems that are a part of their use. ^{3/} I believe changing attitudes of farmers, changing farm size structure and the increasing dependence on non-farm inputs will mitigate these problems in years ahead.

Market order possibilities should be made available generally. Restrictions to various crops seems to make little sense. The restrictions which preclude some states from participating in federal order programs is extremely unfortunate. It seems to be an example of regional bickering at the expense of all. That should not be tolerated in federal laws.

^{3/} See D. I. Padberg, "Organizational Needs for Collective Bargaining," Ch IV. Bargaining in Agriculture; Potentials and Pitfalls in Collective Action, U. Of Mo., Extension Division, 6-911, June 1971.

Policy Concerning Bargaining

When farmers, through the "commodity committee" of a market order, have the opportunity to discipline the market output of their industry, several consequences must be anticipated. One consequence, as discussed above is the stabilizing of prices and the more orderly deployment of advance technology. But in addition, it is inevitable that this opportunity will also become a part of industry bargaining. Facing that reality, it seems important to accompany the prerogatives of industry discipline in market orders with some set of bargaining rules which will make the resultant bargaining process orderly, fair and open to public surveillance.

Probably the greatest sin possible in this area would be to grant coercive bargaining powers independent of the responsibility for discipline. This hoax would not only heckle the processor, but would return to haunt the producer by making his market more chaotic rather than less. I think the labor movement is in trouble right now because it was given too many prerogatives and too little responsibility. We may all pay for this mistake through permanent wage and price control, or (more optimistically) until a redress between labor prerogatives and responsibilities can be found. A great danger here is giving one processor different cost levels than his competitors.

How might policy be developed which would link the right to bargain collectively with the responsibility to discipline quantity marketed?

There seems to be two alternatives:

- a. Bargaining for price can be made contingent upon quantity delivered. This method has been successfully used in the cling peach industry. Higher prices relate to smaller quantity and vice versa. This system links the power to bargain with the responsibility to achieve industry supply discipline.
- b. A more cautious alternative is to restrict bargaining arrangements supportable by law to non-price terms of trade. There are some examples where this type of arrangement has been effective. It is like the case where dairy cooperatives have bargained for price, using their ability to manage surplus production rather than federal law as their bargaining basis.

Since our experience is insufficient to confidently outline the best policy, experimentation may be necessary. In this process of experimentation the principle must clearly be understood. A policy giving farmers the right to demand a price and let the rest of the system accommodate the supply variation is wrong. A policy giving farmers the range of choice through a range of prices associated with a range of degrees of discipline would be optimum. The major source of the problem is an undisciplined supply moving

into a complex and orderly economy. Let the farmer exert discipline by making a collective choice from a range of alternatives and then share in the rewards to all the systems resulting from stability and more orderly supply and change over time.

Some Other Issues

The consideration of these questions are very important to all agriculture. However, agriculture is extremely diverse. I think permissive legislation for market order provisions followed by regularized bargaining would be useful to much of the owner-operator agriculture in the future decade. Some kinds of agriculture are already so organized. Other parts, such as feed grains and cow-calf operations, may be so widely scattered as to make organizing and disciplining yet a long way off. Even here, this more flexible blend of private and public initiative may some day be useful.

Another part of agriculture operates essentially on a piece rate basis. These are usually cases where the grower works to the specifications of the integrator at fixed rates unrelated to price. The highly integrated industries such as broilers provide an example and there are others. This type of permissive legislation has little to say about this rather unique situation. How would one associate quantity discipline with bargaining prerogatives here? It seems very unlikely. The integrators are the primary decision makers and must bear the responsibility for industry planning. To give price or piece rate power without any responsibility to growers would be, in my view, unwise. Therefore, I am not surprised that National Broiler Council opposes this policy. A more realistic approach would be to experiment with this policy for the kinds of agriculture that needs it and exempt the parts of agriculture which it doesn't fit.

Summary

1. Providing a stable economic climate which would encourage the continued investment in improved methods is the highest priority for agricultural policy.
2. Since stabilizing vehicles are destined to become translated into a bargaining operation, rules to make bargaining orderly and fair are highly desirable.
3. Some parts of agriculture do not fit the model currently presented. Piece rate industries should be exempt until proposals are designed to meet their needs.

I suspect that the advantages of large organization and a degree of centralization of the planning and coordinating functions will come to agriculture whether or not we act now. Technology is a strong force in our economy and ideology. Large firm integrators from outside agriculture may be an inherently superior form of organization. The alternatives I propose would give farmers a chance to participate in the kinds of organizations which shape

their destiny. I think the success of owner-operator agriculture should earn it a chance to participate in the required "large organization agriculture" of the future.