



THE 1970'S—A DECADE OF SHORTAGES

About two years ago I was asked to undertake a short-term project for the Washington Wheat Commission. The commission had become increasingly concerned with the rapid and continual growth in year-end, carry-over stocks. Their concern was reflected in a project request, which asked for a "quickie" investigation of the potential for expanding the level of domestic utilization of wheat as a means of reducing the size of carry-over stocks.

Following my five-week investigation into an area somewhat foreign to my normal professional interests, I appeared before the commission to present my findings. My analysis of the so-called "green revolution" in underdeveloped countries and the continued expansion of wheat production in Europe and Australia suggested to me that the industry's continued reliance on the export trade as a market for 80 percent of its production was becoming more and more tenuous. Unable to rely on an expansion of its export markets, I surmised that the industry should look seriously at its domestic market potential. Further investigation suggested that at current price levels (then about \$2.20 per bushel), wheat, as a feed grain, did appear to be competitive with many of the more traditional animal feed ingredients, such as corn and milo. Hence, my recommendation was that the industry seek to become relatively less reliant on the export market by actively seeking to expand domestic use of wheat as a feed grain.

It Returns to Haunt Me

Much besides the normal passage of time has occurred in the two years since my initiation into the world of economic prognostication. Events, such as the Russian grain deal, the drought in India, and the dollar devaluation, have almost destroyed, in total, the validity of my commission recommendations and, in the process, subjected my professional career to the "fun-intended" witticisms of my colleagues. Never before has the output of my professional activities as an agricultural economist returned to haunt me so. Alas, my only means for retaining a degree of self-respect is to console myself in the knowledge that our nation's economists as a group, and many agricultural economists in particular, failed miserably in their ability to predict the 1970's as a decade of shortages.

And Now Raisins Too!

The extent of the shortages now confronting the American economy is extremely difficult to ascertain. There is, no doubt, a tendency to "cry wolf" in response to unfounded claims. Similarly, I suspect that "fear tactics" are being used in some cases to artificially aggravate market negotiations. Yet despite this confusion and strong consumer skepticism, a broad range of shortages are very real.

A shortage of various forms of energy is, in my opinion, the most real and also the most critical to the business economy as a whole. Our own area of the Pacific Northwest, once so prideful of its hydroelectric complex, was being told that shortages of electrical supplies were likely to occur this winter. Almost all forms of petroleum-based fuels are now short or subject to rationing. Forest products,

especially some building materials and pulp-intensive materials like paper are now available only in reduced quantities. Textiles and leather goods are no longer available in quantities adequate to meet the demand. The agricultural production sector in the Northwest now faces shortages of high-protein feed supplements, hay for cattle feed, and some types of machinery and hardware. The reduction in food supplies and the resultant rise of prices at the supermarket is only too evident.

Until recently, I had maintained a cool, almost subdued, attitude towards the severity of the shortage problem. Like many consumers, I interpreted the shortages to be like a bad dream, which would be very short-lived. Last weekend, however, my 4-year-old son shocked me into a realization of just how critical the situation had become. Our family's traditional Sunday morning breakfast consists of bakery-prepared cinnamon rolls. Shortly after sitting at the table last Sunday morning, my son looked towards me in a very confused manner and asked why he could no longer find any raisins atop his rolls. I was unable to respond to his question. The next day, an employee of the bakery informed me that their current supply of raisins had been depleted and no further product could be secured at any price! So raisins now join the ever-growing ranks of those products and commodities now in short supply or no longer available.

Managerial Adjustments?

So some shortages are very real. They are also very broad-based — so much so that no single sector of our economy will be left unaffected. Most disturbing, however, is the fact that many shortages appear to be long-lasting. The energy and fuel shortages, for example, cannot be rectified in the short run. Sure, the supply of raisins may return to normal next year, but it is doubtful that during the remainder of the 1970's total supplies of food and related agricultural inputs will return to previous levels. This is not to say that I subscribe to the Malthusian theory of pending

starvation. Nor do I believe that this economy will find itself forced to return to the "rationed society" of the war period. What I am suggesting is that the American economy, and especially the agricultural sector, must, for the remainder of this decade, adjust its policies away from those applicable to "surplus disposal" and towards those complementary to a program of "deficit management."

How does an agribusiness manager react to a shortage of supplies and/or resources? What types of managerial adjustments are best suited to the reversal of policies noted above? What are the likely effects, long and short run, on daily operational practices of the manager's inability to service his customers to the degree demanded? These and other practical questions will become the focus of the remainder of this paper.

Shortage Conscious Management

No doubt the most critical burden to be overcome is the simple process of developing a shortage consciousness among our industry managers. Business managers have always been plagued with shipping delays, back orders, stock outs, etc. Yet these are normal operational experiences and, to management, represent little more than a temporary inconvenience in the process of securing their productive resources. True product shortages, however, have been rare. Rarer still has been the need for management to give any consideration to the possible shortage of their basic energy inputs, such as gas, oil, and electricity. Quite frankly, as the manager approaches the electric light switch upon his arrival at the office early each morning, absolutely no conscious thought has been given to the possibility that electrical power to ignite the lights will not be available. The electrical light switch, the water faucet, and the automotive accelerator pedal are all indicative of our past naiveté regarding the availability of energy supplies. No longer can we afford to activate these valves and switches without some conscious consideration of the fact that most

current sources of energy are nonrenewable. To accentuate the problem, the agribusiness industry has always been highly energy dependent. The decade of the 1970's will, no doubt, vividly illustrate this dependency. To survive, management will be forced to acknowledge that the well is not bottomless and become more conscious of its use of those resources whose availability has always been taken for granted. Initial indications are that this "shortage consciousness," alone, will result in a 5-10 percent reduction in energy usage. Most certainly, the consciousness should eliminate many forms of wastage and encourage management to be more frugal in their energy consumption patterns. If it's a shortage of products or supplies that confront the industry, the shortage consciousness will, at a minimum, cause management to look beyond the next scheduled arrival of product.

Enhanced Awareness of Alternatives

The textbook model of the decision-making process will always devote some discussion to the step wherein the manager considers alternative solutions. Moreover, the classical decision sequence is 1) problem definition, 2) information gathering, 3) consider solution alternatives, 4) select and implement a solution, and 5) evaluate results. It is the third step that is most often abused in the real world. For example, in most cases, the implementation of a solution is not really based on a choice of one of many alternatives. Instead, the solution is more a result of historical patterns, past commitments, and personal preferences than it is the end-product of a careful study of alternatives. A decade of shortages will, in my opinion, contribute to a reversal of this trend. Alternative management actions, alternative products, and alternative processes will be given more serious attention than ever before. Why? Merely because management will discover that it can no longer depend on inexhaustible supplies of traditionally used resources.

A retailer of agricultural fertilizer and chemicals, for example, will find that he is forced to consider alternative sources of products, brands, product lines, and merchandising methods as material shortages become more critical. Management will learn, perhaps the hard way that long-term customer commitments can only be made on the basis of a thorough study of alternatives and some long-run guarantees of their own. More and more this enhanced awareness of alternatives will revolve around managements' attempt to balance economic and technical desirability on the one hand with the probability of product availability on the other hand.

Reduced Reliance on Market Behavior

In the process of teaching one junior and one senior level course in agribusiness management each year, I spend no less than 10 lecture periods discussing and illustrating market behavior patterns associated with our form of economic system. The objective is to train these managers of the future to more accurately interpret behavior patterns and react accordingly. Supply and demand response is emphasized as the vehicle for normal, free market reaction to price or supply adjustments. Unfortunately, a decade of shortages is likely to render many of these traditional classroom exercises obsolete and impractical. For example, the implementation of any system of fuel or energy rationing is an open admittance that the traditional market system will not suffice as a means for allocating critical, but scarce, resources. Upon further thought one soon recognizes that price increases and taxes, while they might prove effective in allocating such near luxuries as alcoholic beverages, automobiles, and color TV's, are not equally effective in the allocation of our basic "creature comforts" of food and warmth. In short, our society has progressed to a point where everything no longer has a price.

To the manager of the agribusiness firm, the message is very clear. He must reduce his reliance on the open or free market as the

only means for allocating scarce resources. The demand for, or the price of, agricultural chemicals, for example, will no longer constitute the sole basis for the distribution of available supplies. More and more, these managers will look for institutional factors as the decisive elements in product acquisition. This is not to suggest that the cost of merchandise, be it fertilizer, hardware, or raw agricultural products, and will not increase as the shortages become more imminent. Continued price increases may become even more common. Yet price alone, and the other market behavioral traits will no longer become the lone determining factors in product or resource allocation. In brief, the concept of a "fair share" will likely supplant the concept of a "fair price" in many of our traditional resource and commodity markets.

Substitutes and Managerial Flexibility

Perhaps one of the most natural of human reactions is the search for a substitute of that product or resource in short supply. For those experiencing the World War II rationing period, each can no doubt relate a series of interesting stories of how strange and ingenious substitutes were found to replace those items in short supply. Replacement parts for tractors and equipment were hand fashioned in the farm shop rather than purchased. As fuel supplies were reduced, the American public devised a different, but no less enjoyable, life style which was less demanding of mobility. Even where mobility was necessary, substitutes were secured. For example, I recall my grandfather searching his old equipment scrap heap for steel wheels. With the shortage of rubber tires, the old steel wheels were eventually adapted to all his grain wagons with no greater consequences than a rougher ride.

At first thought, the agribusiness manager might argue that modern technology and contemporary business practices have few substitutes. To a degree, this manager is painfully correct. Yet with a little additional thought and some old-fashioned ingenuity, I would predict both interesting and practical

results. The substitutes to gasoline and electricity as a sole source of power are unfortunately few and inefficient. Yet steam, for example, fueled by wood or coal, may return as substitutes for heat and small-horsepower motive power.

An additional aspect of the shortages will also become evident. A true test of a firm's operational flexibility will be experienced. Not only will the firm's ability to adopt substitutes be judged, its willingness to implement entirely new business practices will also be tested. For example, it now appears that the wholesale and retail fuel dealers will be asked to implement and regulate the national rationing program. Such dealers have never before confronted such an edict, nor were they in any way prepared to perform such a function. But the choice is not theirs to make. If they choose to remain in business through this decade, they will have to demonstrate their ability to perform this function, and perhaps others, both efficiently and without bias. Never before will businesses be more severely stressed.

The Mother of Invention

"The mother of invention," so they say, "is necessity." And here lies the silver lining in an otherwise dark cloud. I truly believe our country, our economy, and our agribusiness industry will be better off for having survived the energy crisis and a decade of shortages. Postwar babies, such as myself, who never before in their lives experienced a truly unfulfillable want, will become more conscious of their affluent ways, perhaps even a little more appreciative of life's more basic enjoyments. But businesses, too, will, no doubt, experience a change in attitude. Growth, for the sake of growth, will no longer be so cherished. I would predict that industry's past affection with style, fashion (design), and even "public image" will become somewhat more subdued. In its place will appear a revitalized concern for durability, practicality, reliability, and efficiency. These concerns will likely first become apparent in the automotive and

consumer products industries. It will then be only a matter of time before other business sectors are affected. We have gone too far to return to the era of the "Model A" and the wood-burning furnace. But the manager should be especially conscious of his customer's desire to return to the basics of the so-called "good life."

The most significant contributor to this silver-lining philosophy is the simple fact that "necessity" will foster the development of 1) additional sources of carbon fuels, 2) totally new sources of fuels, 3) more efficient means of both production and transportation, 4) improved handling and storage technology, and 5) a greater world-wide appreciation of the use of nonrenewable resources. A goal of energy self-sufficiency has been set for 1980. To achieve this goal, we must not allow the energy crisis to subdue the processes of research, discovery, and invention. In fact, success may very well rely on their continuation.

Customer Selectivity

Never before has the agribusiness industry been faced with the process of customer selectivity. Prior philosophy suggested that the manager of a business should always be pleased to acquire a new customer. Moreover, all of his activities in the areas of advertising and promotion have been geared towards the generation of new customers. Under conditions of shortage, the new customer will no longer be so highly cherished. In fact, in some industries, the only thing less welcome than a new customer may be an unsatisfied old one. It is, of course, up to the firm's manager to establish priorities of his own choosing. The only option not available for consideration would be a system of highly discriminatory pricing. Customer selectivity, on the other hand, is a realistic possibility. A quick review of his existing customer accounts will give the manager some of the information necessary for the establishment of priorities. The intermittent customer, or the "slow pay," for example,

would normally rank lower than the regular (or loyal) customer with a good credit record.

To the customer, this process of selectivity may appear to be ruthless, unfair, and capricious. To the manager, the process is composed of a combination of pluses and minuses. Often during earlier times, the manager no doubt expressed the wish that he had been a little more selective in his agreeing to sell a product to a marginal credit risk. Yet on the negative side, most businessmen will feel uncomfortable denying service to anyone and even more uneasy when asked to establish and implement the selection criteria. A word of caution, however, to deny service to a would-be customer is not illegal so long as the criteria upon which the denial was based is explicit, nondiscriminatory, non-capricious, and uniformly applied.

Sensitivity Planning

One final phase of managerial reaction to the decade of shortages shall be referred to as sensitivity planning. In perhaps one year or less, we will be discovering that many agribusiness managers will have developed a high degree of sensitivity to the shortage phenomena. The impact of shortages on all alternative actions will be their first concern. All plans and preparatory actions, prior to activation, will be thoroughly scrutinized as to their sensitivity to shortages or aggravation thereof. A whole new planning environment will have evolved.

Those questions such as "how much can we afford," or "how much do we require" will be replaced with such questions as, "how much is (or will be) available" or "how much will it consume." For those persons who regularly work with or for these shortage sensitive managers, the impact will be obvious. The old sequence of "prior considerations" will have been supplanted with a more recent one — one in which the assumption of a "bountiful supply" can nowhere be found.

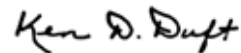
SUMMARY

It seems only too ironic that for almost two decades our agricultural economy was highly concerned with "surplus disposal" and must now convert rapidly to a philosophy of "deficit management." For all those years during which our economy boasted of "feeding the rest of the world," it now appears that we overlooked the simple fact that the "rest of the world was fueling our economy." The agribusiness industry must now adapt to a decade of shortages. The "energy crisis" will have its effect. This paper is devoted to a brief description of how management might anticipate and adjust to the pending broad-based shortages.

First, and perhaps most important, management must develop a shortage consciousness which will reduce waste and

inefficiency in production and/or resource use. Second, the manager will be forced to sharpen his ability to study alternatives. Third, institutional factors will replace some normal market behavior as allocative vehicles in our economy. Next, a search for substitute products, resources, and energy supplies will be greatly accelerated. Many businesses will be forced to implement a system of customer selectivity. And finally, existing management planning criteria will be supplanted by a new criterion, which is substantially more "shortage sensitive."

Sincerely,



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