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FOOD DISTRIBUTION RESEARCH PRIORITIES TO ALLOW MAJOR IMPROVEMENTS IN TOTAL SYSTEM PRODUCTIVITY BY 1985

Food Processing

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In order to get a complete look at the food processing industry and to be consistent with our "Total Systems Concept", this segment will be considered in three only partially separable parts--a) production, b) in-plant, and c) movement of products to next point in distribution system. Additionally, priorities will be set regarding the productivity element within each part and an effort will be made to classify the element as controllable or uncontrollable from the processing firms managements point of view. Also, a fourth category of "general" productivity elements--those which pervade the entire industry--will be discussed.

1. Production

a. Uncontrollables

Factors such as seasonality--product availability during only part of the year; geography--size of farm, differing planting, growing, and harvesting conditions and urban pressures; and perishability--varies by product but none can escape it, head the list. Each individual product has certain characteristics which effect productivity throughout the entire system. Research work on growth regulators can have a significant impact on productivity. Further, there are problems of input availability which are plaguing firms now. Given some of our resource allocation problems, these input shortages could get worse. Over the longer run, such things as weather

modification, dramatic relocation of growing areas, and the introduction of "synthetic elements" into the food growing-processing system can have an effect on productivity in the growing area. Research on these factors will not only effect cost and quality of raw products, but also will effect operational efficiency in the processing plant.

b. Controllables

The previous discussion might lead one to believe that there is little that individual firm management can do to effect productivity in the production of food items to be processed. If viewed in the short run "catastrophe avoidance" sense, this is true. However, from the longer range point of view, a continuous evaluation of the "grow or buy" decision on raw stock availability is the place where individual firm management can have a significant impact on total systems productivity. It is within the process of selection and adoption of varieties, cultural practices, equipment and technology where the greatest potential for improving productivity and product quality exists. The optimum relationship between economies of size in growing and in processing needs much research effort.

In addition, there is a significant area for productivity improvement in the interface between product delivery and plant receiving. The problems are not

only scheduling but a meshing of technology to avoid product spoilage or loss, to provide for efficient product flow into the plant, and to minimize the extent of "passed-over" acreage. All these factors contribute to more efficient use of processing facilities.

2. In-Plant

a. Uncontrollables

Within the limitations discussed above, the quantity and quality of product flow are pretty much uncontrollable at the plant level. Another serious problem has to do with availability and utilization of repair parts and regularized maintenance and replacement schedules. The processor lives in mortal fear of major breakdown during the peak of processing season. The parts scarcity situation only serves to heighten this problem.

b. Controllables

Number one priority in-plant regarding productivity is the area of labor. Such items as 1) availability, 2) training, 3) motivation, 4) capacity for growth, and 5) work attitude are highlighted.

Secondly, interface between the processing level and the next level in the distribution system is extremely important.

Third on the priority list is the area of technological breakthroughs. Each commodity processed has its own level of technological constraint regarding productivity. Breakthroughs on these constraints can impact productivity for the entire system. In some cases the problem is application of existing technology and the attitude of firms, in differing stages of maturity, toward acceptance of new ideas.

Fourth is substitution of capital for labor. In some products (free flowing by nature), we have gone about as far as possible in this substitution process. In view of the materials and energy situation, there are those who say we have gone too far and the process may tend to start reversing itself. Much work needs to be done in this area.

3. From Plant to Next Point in Distribution System

a. Uncontrollables

Top priority, especially for long haul merchandise, is the tragic state of the nation's rail system. A complete overhaul of the rail system is needed to meet processors and other shipper needs.

Scheduling problems occur with other modes of transport and need work to increase productivity in flow of product within the distribution system.

b. Controllables

Priorities here are difficult to set. Some problems are 1) small orders, handling and overhead costs, 2) consumer packaging at processing point and handling (container, carton and packing medium--2/3 of weight) over long distances, 3) lack of change in buyer's opinions and attitudes regarding consumer needs, and 4) complete adoption of the pallet exchange program throughout the system.

4. General

a. Government--Unquestionably this is the top general problem regarding productivity. Such items as 1) cost of compliance with regulation, particularly where results are of questionable benefit, 2) constraints on productivity by regulation, 3) indecision in

implementing regulations, 4) frequent change in interpretation of regulation, and 5) lack of uniformity, of enforcement and regulatory scope at federal, state and local levels, 6) conflicts between agencies, 7) interface between various government activities, are all roadblocks to productivity.

b. Energy--skyrocketing costs of energy, have forced a rethinking of the entire processing situation.

c. Water--availability, cost and regulations are all items here.

d. Processing technology--broader application of existing or new processing technology (e.g. aseptic canning, dehydration, freeze-drying, etc.) which would allow for more productive delivery of nutrients throughout the total food system.

e. The Electronic Front-end in Retail Stores--Universal product code must be put on packages by food processor, benefits to total system--cost to processor. Electronic funds transfer will have an impact here also.

f. Management--this is largely a perspective problem to get management to view the food industry in a total system context.

As in other segments of the food industry system, productivity has many aspects within the processing industry. Some can be dealt with internally, but most also effect the rest of the system.
