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The Changing Reference Point

IT IS NOT easy to think of today's new developments within the frame of reference of today's situations rather than yesterday's. Industrial and scientific history is decorated with interesting stories of things that "couldn't be done" that are commonplace today.

Compression of the time scale is an interesting device that emphasizes our problem. If we scale all of known and indicated existence of mankind into a period of twenty-four hours, much of our technological development has come about within the last minute. And if new scientific discoveries are plotted on coordinates against time, the slope of the resulting curve constantly becomes steeper.

Although we may adjust our thinking to the rate of change we have known, the fact that the rate is increasing makes sufficient adjustment to meet the current situation more difficult.

Some of the knottiest problems related to the technical aspects of agriculture and food production take on a somewhat different complexion if placed in a slightly different frame of reference. Two months ago, we dwelt on the farm as a technically-based industrial plant, something quite different from what we think of today as a farm. But it is not necessary to go that far beyond today's system to see pesticides residues or food additives in a cooler light.

As we learn to manipulate nature to suit what we consider to be our own practical interests, we might do well to keep in mind the whole system on which our efforts are being exerted. In developing a potent insecticide that can wreck an insect's nervous system, we must remain aware that it might do something comparable for a human. If we are to modify foods—which are complex chemical mixtures—by chemical means, we cannot afford to neglect the possibility that the effects may extend beyond and also in directions other than the primary goals.

But these considerations need not be frightening or even stultifying to further experimentation. Electricity, to take a major example, once a terrifying mystery, now is in almost every home in this country. Gradually we have become aware of the necessary precautions in handling electricity, we have adjusted our system of living to fit, and it has become commonplace. The manipulation of radioactivity and atomic energy have come to public attention so quickly and strikingly that we are strongly aware that they must be treated within a different frame of reference.

But the growth of influence of chemistry has come more gradually and through familiar materials. Chemistry by name has remained, to an unfortunate degree, something related in the public mind to black magic. Now in implementing its benefits, we must struggle with hypersensitive issues as well as prejudice.

Now we are in the process of fitting some of our new technical developments into our social system. The Miller Pesticides Amendment (page 214) is one of the instruments for doing this. While the implementation still is faced with problems, such as education of the users of pesticides to apply them properly as directed, it offers protection to the public. Not only does it protect the public from mysterious or little-known poisons, but it also protects the producers of pesticides from unreasonable accusation of carelessly poisoning our people.

It adds to the cost of getting a new pesticide on the market. But we must realize that such costs are a part of the frame of reference within which we are operating. It is reasonable to expect that growing knowledge of pesticides, improved analytical techniques, and the increased value of protecting our crops will make conformance with Miller Amendment requirements an acceptable part of the development of the most useful pesticides.

Food Additives Legislation

ANOTHER AREA now in hot debate, but not yet blessed with an operable instrument such as the Miller Amendment, is that of food additives. Here, as with pesticides, the public must be assured protection. But here also the route to protection must pass through a maze of varied opinions and even prejudices.

The House Committee on Foreign and Interstate Commerce now has before it several proposals on food additives legislation (page 201). Points of disagreement are many: definition of additive, adequacy of pretesting, safety standards, appeal procedure, scientific advisory committees, and the grandfather clause, to name a few of the more thorny ones.

The more fundamental differences concern the point where the balance of power between government and industry should meet, whether government or industry should bear the burden of proof, and the best method for obtaining opinion and advice of scientific experts. It has been obvious that many who have devoted much thought to these problems have not fully voiced their thoughts in Congressional hearings. This may be because of fear that any criticism they make of pending legislation would be misunderstood or misrepresented as opposition to any legislation.

Perhaps these questions might be aired and debated more effectively before a study group of public-spirited and impartial citizens. Such a group could sift and weigh issues freely, within the proper frame of reference, and report back to Congress some guiding principles that could break the impasse.