

Antibiotics and the Future

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THE FEATURE ARTICLE of this issue presents a brief survey of the nonpharmaceutical uses of antibiotics. It looks upon a scientific and technical development with possibly a huge future potential difficult to define or assess. The growth of knowledge about antibiotics and the uses to which they are put has been remarkable. The survey we present is not a complete review or a description in full perspective. It is intended only as a service to our readers in calling some of the highlights of practice and theory to the attention of those interested in improving the use of our food resources.

Nonpharmaceutical products no longer are mere by-products of the antibiotics industry. Many of the non-pharmaceutical uses are related to foods to be sold on the mass market for human consumption. Where such products of high biological activity are concerned in this manner, care and calm consideration of the implications are called for. The most important commercial use at present is in the stimulation of animal growth; the animals so treated will be used primarily for human food. Some aspects of the problems involved have been settled through research studies and clinical observation. But Food and Drug Administration is not entirely in agreement that the situation is clear. Direct addition of antibiotics to food as an effective preservative is a much more controversial matter and the FDA has said that it will not approve this use—at least, we presume, not until much more scientific evidence is carefully gathered. Likewise, the USDA Agricultural Research Service meat inspection is opposed to approving for human use, meat in which antibiotic preservatives are used. There have been suggestions in some more extreme quarters that research and development in antibiotics for food preservation should be dropped. In the other extremes, there are contentions that some of the high precautions on this matter are excessive and are taken simply because it is easier to be safe through prohibition. Neither view is admirable.

Clearly, there is a need here for a calm, restrained approach and for cooperation among government control authorities, research scientists, and executives of the industries involved. Research should continue for it is only by that means that we shall be able to know whether the use of antibiotics in food preservation is a problem too complex to cope with or whether the difficulties can be overcome with assurance. Research should continue not only in industry but in such organizations as the USDA and university laboratories, both of which deserve high praise for their contributions.

All possible efforts to reduce waste and improve food resources are desirable; this is one of the highest goals of research. Hasty conclusions, haste in commercialization, or carelessness in publicity can do harm which may not only produce unfortunate incidents but thereby retard progress where progress is needed. Not only should re-

search continue but results should be published. Such publication calls for great care in drawing conclusions or making predictions. Any publicity given new developments should differentiate clearly and emphatically between work in the research stage, that in experimental field testing, and any developments which clearly are ready for public use.

Sometime in the past, a statement was given to the public to the effect that more than 700 chemicals are being used in food while approximately 276 of them have not been proved safe. Such a statement is of service primarily to those who wish to produce shock. It does a great disservice to progress in food processing through its being a half-truth. We should be alert to avoid or to bring promptly to open trial such carelessly produced detrimental factors where antibiotics are concerned. We must avoid hasty claims and careless sensationalism in publicizing new developments. Thorough and careful research, properly published, is the soundest foundation. Active, objective cooperation among all concerned is urgently called for.

Hunger amid Plenty

THE FOOD AND AGRICULTURAL ORGANIZATION of the United Nations, now meeting in Rome, reports that the world production of food has surpassed the increase of population. Some further increase in the margin is predicted if national program estimates are met. But this increase is doing very little to alleviate hunger problems in the parts of the world where they are most severe. The increase in food production has come mostly in the countries already well fed—particularly the U. S.

Mounting stocks of unsold food, declares the FAO, may widen the gap between the world's few well fed and its many hungry. A "more selective approach to agricultural expansion" is urged. Elsewhere in this issue (page 1132) comment is offered on the implications of this situation.

The Netherlands government plans to propose a world conference to discuss this problem. Food supply is recognized as one of the basic causes of political problems. Today we are spending huge sums in efforts to keep peace in the world. Only a very small amount is being devoted to the study of improving the world's food supply and too little is being done to increase the ability of hunger-ridden countries to feed themselves. An international congress, facing facts and taking a concrete, realistic approach to the ironic condition of hunger amid plenty, should have the enthusiastic support of the entire world.