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## **Fallout Fallout**

 ${\bf R}^{
m ADIOACTIVE}$  fallout from nuclear tests has been much in the news of late. Not all public discussions of fallout, unfortunately, have been entirely factual and objective—they probably can never be so. As a result, the reading and listening public has been bombarded with a sort of "secondary fallout" of words, facts, and conflicting opinions which must in some cases merely cloud the issues and bewilder the average citizen.

The trouble lies in the fact that scientific, political, and sociological considerations all are deeply involved, and so thoroughly intertwined as to make their separate examination almost impossible. Measurement of actual fallout rates is a scientific or technologic matter, but interpreting fallout data in terms of risks to present and future generations, at least on the basis of existing knowledge, enters the realm of opinion and judgment. Deciding just how much of an already poorlydefined risk should be tolerated in the name of defense, security, or scientific progress calls for sociological awareness, while evaluating the importance of nuclear tests themselves as a deterrent to aggression is largely political.

Yet all these considerations and many more must be taken into account if decisions and perhaps laws concerning fallout are to be rational and defensible.

Public fallout discussions so far may have generated more heat than light, since they have dealt more often than not with sociological and political implications. Perhaps one reason for this has been the dearth of sound scientific data on the long-range effects of fallout, and disagreement within the scientific community as to what the available data mean.

All this makes the fallout picture seem rather badly confused. Yet there are already enough relevant facts on record to permit reason rather than emotion to prevail in approaching the important questions involved.

And more data are on the way. Numerous studies are already in progress, and if Congress appropriates funds, an intensive study of the effects of radioactive fallout in the diet will begin this year. Officials of the federal Public Health Service reportedly are set for an all-out study; they will seek to measure fallout effects on the total diet in some area or areas in which above-average radioactivity has been noted.

Where do we stand now, with regard to essential fallout knowledge? The situation is far from chaotic. Enough is known, for instance, to allay most of the fears generated by "scare stories," and to permit the thoughtful citizen to place in some perspective the actual or potential dangers posed by fallout.

To this end, we recommend thoughtful study of the feature article beginning on page 466 of this issue. In it, the authors summarize the present status of factual knowledge about strontium-90 in foods. They discuss its measured concentrations, and some of its "predicted" or "calculated" effects.

On the whole, we think, their observations are reassuring. While there definitely is reason to be interested and concerned, there seems at this point to be no justification for real alarm.