Book Reviews

The Poisons in Your Food. William Longgood. Simon and Schuster, New York, 1960. 277 pp. $3.95.

This book is an all-time high in "bloodthirsty pen-pushing." It deals with the important problem of chemical additives but from the bias of the nonscientific, natural food-organic gardening cult—the followers of J. I. Rodale (publisher of *Organic Gardening and Farming, Encyclopedia of Organic Gardening,* and so forth), of Natural Food Associates, Inc. (publishers of *Natural Food and Farming Digest),* and others of the same convictions. Most of the "authorities" named in the book are the cult leaders, their gods, or a few true scientists whose work or expressions have been taken either out of context or out of time and used in such manner that they seem to support the doctrine of the believers. The quoted voices of authority and knowledge on the "scientific facts" include *Time, Police Gazette, Prevention,* and the Bonn correspondent of the *Economist.* The book is an irresponsible bid for wide sales through sensationalism. Indeed, one of the author's own definitions describes well my appraisal of it: "[an effort to] beguile, deceive and defraud the housewife by making her think she is getting something she isn't."

The muckraking in this book employs all well-known methods of the irresponsible purveyors of the sensational. Expenditures for life and hospital insurance, for aspirin, and for medical care are cited as indicating a damaging effect of chemicals in foods! The reader is told that ". . . the nation's health is steadily deteriorating." He also learns that "natural foods . . . have a delicate chemical balance that was established by nature for a purpose. These naturally occurring chemicals exist in their specific proportion for a specific purpose. . . . If a larger or smaller quantity were desirable, the amount established by nature through the evolutionary process would have been larger or smaller." The author repeatedly implies that scientists, whose uncited evidence disagrees with his views, have either been bought off by industry or by government, or that they may be deliberately prejudicing their work and reports because their university receives funds from the Public Health Service or from industry, or even because the scientist hopes that after retirement he may be able to get an industrial job!

The author's fascination with the cult of "natural" versus "synthetic and artificial" is well revealed in his presentation concerning meat. The average steak or roast, he writes, "probably comes from a cow born through artificial insemination, raised with an artificial sex hormone implant in its ear, fed synthetic sex hormones, . . . slaughtered—generally by an inhumane method—and sold as meat." In his association through name-calling, he reaches a high in stating that "possible sexual repercussions" on human beings have been commented on by "Dr. Christian Hamburger of Copenhagen, who helped the ex-G.I., George Jorgensen of New York become 'Christine' and Charles McLeod of New Orleans convert to 'Charlotte'." The device of conjuring up fears of impotence or of feminizing influences is an age-old one for those wishing to oppose science. Among primitive peoples, this device is often employed by the witch doctor to oppose the introduction of effective scientific control or treatment of disease.

Longgood's book will no doubt be welcomed by those who believe with him that the public is the victim of a giant conspiracy joined in by the Food and Drug Administration, the American Medical Association, the "big chemical companies" and, apparently, scientists in general—a charge so ridiculous that it deserves only to be ignored. Longgood's book will readily be recognized for what it is by any scientist with so little to do that he takes time to read it.

Finally, it is to be hoped that the great mass of the American public is sufficiently intelligent and logical to recognize that writers and publishers sometimes fail in their responsibility to provide factual and objective information on important issues of the day despite the availability of authoritative, considered source material from organizations such as the Food and Agricultural Organization of the United Nations (FAO), the World Health Organization of the United Nations (WHO), the Food Protection Committee of the Food and Nutrition Board of the National Academy of Sciences–National Research Council (FPC), the Food and Drug Administration, the U.S. Department of Agriculture, and other responsible bodies.

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The Genetic Basis of Selection. I. Michael Lerner. Wiley, New York, 1958. xvi + 298 pp. Illus. $8.

This is Lerner's third book on selection and animal breeding. The first, *Population Genetics and Animal Improvement* (1950), was a conventional treatment of the theory and practice of selection for improved performance in livestock. The second, *Genetic Homeostasis* (1954), was concerned with genetic systems that are refractive to directional selection; it was speculative, imaginative, controversial, and influential. The four year periodicity is maintained with this 1958 volume, whose subject content is much like the first, though with overtones from the second.

The book begins with a general review of population genetics and the inheritance of quantitative traits. There is some discussion of natural selection and evolution, but the main emphasis is on the special opportunities for selection which are available to the animal breeder, such things as progeny or family selection, selection indices, inbreeding and crossing, selection for combining ability, and the eventual hope for some utilization of asexual propagation. There is a full, but (necessarily) inconclusive, discussion of the relative merits of intragroup selection and selection for combining ability in crosses.

Both theory and empirical results are included, the latter drawn largely from the author's wide experience with poul-

try breeding. The subject is approached "without either the naturalists' disdain of or the mathematicians' reverence for statistical formulation." Such a nonmathematical treatment loses some precision of meaning. For example, how does Lerner's "integrated gene pool" differ from an adaptive peak, to use Wright's metaphor? A mathematical formulation is not only more precise, but leads to a deeper examination of the conditions under which such a multidimensional peak could, in fact, exist.

The reader will find this book an excellent guide to the literature, for it is outstanding in the breadth of references cited. I like Lerner's writing style; there are many quotable passages, and every chapter is interestingly written. A most welcome device is that of segregating much of the technical or ancillary information into "boxes" that can be read or omitted according to the reader's taste.

On the whole I would characterize the book as being open-minded rather than critical, imaginative and speculative rather than rigorous. Whether this is regarded as a fault or a virtue will depend on the reader.

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The Weapon on the Wall. Rethinking psychological warfare. Murray Dyer. Johns Hopkins Press, Baltimore, Md., 1959. xxi + 269 pp. $6.

Twenty years ago, psychological warfare had a ring of excitement about it—at least to a dedicated band of practitioners who saw in it a means of hastening victory over Nazi tyranny and serving the cause of democracy and freedom. It was less than exciting to professional soldiers, more accustomed to put their trust in mortars than in microphones, or to professional diplomats, better accustomed to the discretion of traditional foreign relations than to the blasts of mass propaganda. During World War II, both propagandists (most of whom detested the label) and specialists in military, political, and economic action learned to get on better. They developed rules of thumb to formulate policy and guide action, even if they did not leave a full legacy of agreed doctrine.

But today, as Murray Dyer points out, psychological warfare is neither exciting nor adequate as a concept to cover the requirements for persuasion appropriate to cold war or to peace. He proffers "political communication" as an already well-fashioned weapon on the wall, waiting only to be taken down and used in the service of democratic values. But he documents the difficulties, noting misconceptions rife in government officialdom and among other wielders of power, let alone intellectuals, about the nature and needs of political communication. He notes the absence of doctrine. He traces out disagreements between departments of the government (State and Defense especially) about who should wield this weapon and how, in war or in peace. He calls for concerted action under the wise and dramatic leadership of a President standing above departmental parochialism and conflict, aided by a co-ordinator in the White House. He insists that we must match ideas harmoniously with policies and actions, but claims we have not "found our ideas."

Dyer has gone through the immediately pertinent literature comma by comma including the writings of practitioners and scholars and the reports of British and American government committees. No mean practitioner himself, he has interviewed key figures in earlier programs. He has enriched his report by inspecting histories still officially secret. His account and his conclusions gain weight thereby.

But his book is, in some respects, disappointing. He repeats data and reasoning from chapter to chapter as he deals with these themes from slightly different standpoints. He occasionally misconceives as well as misquotes. More serious, from the standpoint of the scientifically trained reader, are his shortcomings in dealing with the fundamental questions of method and in argumentation from evidence. While no one could quarrel with his demand that more science be brought to bear on the intelligence and evaluation functions in communication, his book offers little guidance on how this might be effectively accomplished. The social scientists are already doing somewhat better than Dyer seems to think—notably in analyzing the effectiveness of the operations of the United States Information Agency.

Dyer is more concerned with the developments to date than with the future. He does not attempt to envision the future as a context for judging the appropriateness of political communications. He does not even try to specify the main parameters of limited war, let alone a period after a thermonuclear exchange, in which a more effective political communication must play its role.

Despite understandable shortcomings, this book contains much of value. It provides technical data of interest to sociologists and political scientists, especially those concerned with changes in government structure and bureaucratic behavior under stress.

But far more important is the author's demonstration of the ranges of concern forced on us as a nation by the conscious attempt to use political communications in the service of national values. Despite any shortcoming in philosophical insight or in research method, this book—in particular, its preface by George S. Pettee—makes it impossible for a reader to remain indifferent to the depth of the issues of who we are, what we stand for, and how we express ourselves to ourselves and to the world. These are not technical matters.

What we do about these issues is up to us. No scholar, by demanding presidential leadership of a national program, can impose unity in word or program in a pluralistic, democratic society. Our political communicators will have to be satisfied with something else. Could that be a humble and honest reportage of the many ways in which we show respect appropriate to the condition of many kinds of human beings, or in which we fail to do this? Could that include demonstration of how we use wealth and strength and human energy in the service of human dignity?

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Scientific Research in British Universities. 1958–59. Department of Scientific and Industrial Research. Her Majesty's Stationery Office, London, 1959. xii + 466 pp. Paper, £1 5s.

This volume provides brief notes on scientific research in progress in British universities and university colleges and describes the projects in sufficient detail to indicate the scope of the research.

The arrangement of the institutions and of each section within an institution is alphabetical. The head of the department and members of the permanent staff engaged in supervising research are listed. Alphabetical name and subject indexes are included.