

*Symposium on Additives and Residues in Human Foods***Introduction**

MAN is unique among animals in his desire and ability to control his environment. In a broad sense a part of this activity is considered by the Symposium on Additives and Residues in Human Foods. Man has learned to control four and six legged pests in his home; infectious agents in his air, food and water; rainfall from the skies; smog over his cities; nutrient balance of farm soils; and vitamins in his foods. He contemplates control of radiation, of combustion residues and of human fertility. His domestication of plants and animals, their proper feeding and breeding, and the control of their infestations have allowed a small portion of the people to produce abundant food for us all. Progress in these activities has required an arsenal of chemicals. Each compound is intrinsically neither good nor bad; its use may be either good or bad. The quantity used under each condition is important in the reaction obtained. Strychnine is a deadly poison in the hands of a murderer and a life-saving drug when used by the physician.

Food additives are another of man's devices to control his environment for a better life. Man has used spices, salt and herbs on his foods from his first attempts at civilization. The first U. S. patent in food additives was issued in 1886: "A new and useful mixture of salt and phosphate of lime for table use as a condiment for seasoning food."* The population explosion will soon force all nations to produce food to their maximal capacity. Within your lifetime the amount of available food will be the limiting factor in the population growth of

these United States. We must learn to use these compounds properly before that time comes.

Many tons of hundreds of chemicals are used each year by the food industry. Food additives are big business. Most additives, however, are not essential nutrients. Each is added for a specific purpose; it may increase yield, growth, efficiency, shelf life or salability. It may decrease spoilage, disease, rancidity or losses by predators. Some are unintentional, as material absorbed from containers. Some are gone before the food reaches the consumer, and some leave residues. The main reason for the use of additives is to provide more food at lower unit cost for the producer and/or consumer.

Much time and effort is needed to resolve major questions in the use of additives. This symposium is held in order that you may better evaluate this complex problem. You are vitally involved as a consumer. As one knowledgeable in nutrition you may be asked to resolve dilemmas such as this one. You should transcend emotional and political vectors to learn the types, usefulness and limitation of these compounds. You should have some idea of the basic chemistry and pharmacology of the compounds involved. You should seek a proper perspective regarding the effectiveness and rationale of present practices and glean from these discussions a positive view of future needs coupled with a realistic philosophy to guide immediate work. Our purpose is to help guide you, tomorrow's leaders, who will face the problems raised today.

T. D. LUCKEY, PH.D.
*Professor of Biochemistry
School of Medicine
University of Missouri
Columbia, Missouri*

* PETERSON, A. G. *Salt and Salt Shakers*. Washington, D. C., 1960. Washington College Press.