

OBEYING THE LAWS OF NATURE

WHEN applied to food the term "organic" means from a living source and without having its value reduced through heat treatment or other destructive influence.* This is the original use of the word; however, it is now used in the technical sense of meaning a compound of carbon, without any reference to its nutritional aspects.

Since the entire animal kingdom depends upon the plant kingdom for its support, nutritionally (meat being a second-hand plant material), organic food means food from natural sources, as well as natural food in its most unrefined and unprocessed state. It means too, natural foods that were not produced with artificial substitutes for natural ones, whether these substitutes were in the form of plant or animal foods, soil additives or synthetic fertilizers.

We are a part of the great cycle of life that includes both the vegetable and animal kingdom. The vegetable kingdom is the foundation of all life, since it is food for the animal. Only the vegetable cell can absorb the sun's energy and create proteins, fats and carbohydrates as well as the vitamins, hormone precursors, enzymes and organic mineral compounds so essential to the animal as food. Without this creative ability of plant cells all animal and human life would disappear, as no man has ever created an enzyme or protein able to support life.

Some of you may recall having read about an experiment in which a goldfish was hermetically sealed in a flask with some algae and placed in the sunlight. The fish lived many years in equilibrium with the algae. The algae used the excretions of the fish as food and in turn created food for the fish by absorbing the sun's energy to regenerate the degraded organic compounds excreted by the fish.

Our government-financed space program is now trying to reproduce the goldfish experiment with man. In order to send a space ship that may be years on its way to Mars or some other planet, scientists assume that man, like the goldfish, will need the same hermetically sealed little world to live in. The energy of the sun will be the sole necessity for him to live his normal life span. He will no doubt live a far more healthy existence than we now do, with all the refined, synthetic and toxic foods with which we regularly insult our bodies.

It might be asked, "Why are 'organic' foods considered better?" The answer is, since we all must depend upon living processes for our own life, it must be true that only organic foods can support life. The plant with the aid of its subcontractors, the microbiological soil components, builds up from inorganic components of the soil and air (mineral factors, water and carbon dioxide) plus radiant energy from potassium (without which our heart cannot time its pulsations) so that we can perform our living functions by using the heat and power stored up by the plant in its leaves, seeds, and roots, and without which we would be as inactive as an automobile without gasoline or a steam locomotive without coal (other reservoirs of stored-up sun's heat, put there by plant life).

We cannot tap these coal and oil sources for energy or food because human and animal cells must have living, fresh material from plant cells to maintain themselves. When we heat foods, at the temperature of 140° F. the enzymes are destroyed and at 187° F. food proteins are damaged so that the nutrition of bone and tendon is affected. The up-

per temperature limit for algae in hot springs is 185° F., for such plant cells are found living in ponds up to that temperature. The cells in our bodies begin to be damaged as soon as the body temperature rises above 105° F. It has been well demonstrated that many of our commonest forms of disease arise from the use of pasteurized milk and cooked foods, in particular loss of teeth, arthritis, stomach ulcers and liver disease.

Even the poisons we use to control insect invasion of our crops may be divided into organic plant products that are relatively innocuous, that soon disappear from the soil by oxidation (like all plant products), as distinguished from mineral poisons such as arsenic (which accumulates in the soil until plants—grown on it—poison human consumers) or vicious synthetic poisons like chlordane, DDT, etc., which also may accumulate in the soil and act as a cumulative poison in all foods which they contaminate.

To illustrate the point, note that synthetic substances are beyond the experience of living creatures. You might think that the chemist who made the first synthetic Vitamin B₁ was actually successful in duplicating the natural vitamin. He certainly thought so, but after his product was fully accepted by all of us (except the more skeptical "organic food fanatic") Dr. Barnett Sure of the University of Arkansas found that his test animals fed only TWICE the daily requirement of the new synthetic vitamin became peculiarly affected in that they transmitted to their offspring something very undesirable—their offspring were STERILE. All succeeding generations were chemically castrated, castrated by something their fathers or grandfathers did and that they themselves could not prevent. We have yet to see a synthetic (coun-

[to be continued]

terfeit) food substance that has not been found very dangerous when carefully investigated. Glucose, the cornstarch derivative (dextrose), a synthetic chemical made by cooking starch with mineral acid, used in this country in almost every food product, is an adulterant and filler (like water in milk), and is known to predispose to cancer, block calcium assimilation, and cause diabetes. Synthetic fats made by hydrogenating oils cause a rise in blood cholesterol and create high blood pressure and heart disease, while the natural food oils keep the cholesterol down and prevent such disease (proven to be true for both test animals and human subjects). It is a great mistake to assume that a synthetic imitation is biologically identical to the natural counterpart. There are many ways in which they may be chemically alike but where the natural product is quite different biologically. The chemist has no such methods as the living cell for distinguishing subtle differences. The use of organic food, food that has been made by living cells, or that has not been biologically altered by oxidation, cooking, or refining and grown on soil that has not been poisoned or organically damaged, is the only safe way to avoid the danger of the disease of malnutrition.

III

To show how important it is not to break the natural cycle of life (the **Wheel of Health**), we call attention to the finding of Dr. F. M. Pottenger, Jr., who after demonstrating the incompetence of pasteurized milk and cooked meat as food, discovered that the cat pens where the animals received the heat-treated foods were incapable of growing weeds or crops, the cat manure compost being toxic to plants instead of supportive of plant growth. When beans were planted in the outdoor cat pens, the crop was luxuriant and normal in the pens where raw milk and raw meat had been fed, but in the pens where pasteurized milk and cooked meat had been fed, he hardly received his seed back in the "harvest." Agriculturally speaking, the soil had been ruined. The interdependence of plant and animal life cannot be better demonstrated than by this series of experiments. The nutrition of man is a miracle of creation, a biological process of creating proteins, fats and carbohydrates by plant metabolism that are each too complicated for any chemist to dare to try to duplicate. They are not chemicals at all, any more than a watch is a chemical. Organic foods are far more, they are in part special liv-

ing proteins such as enzymes, in which the entire vitamin catalog is involved as component parts. Enzymes are **FUNCTIONING MECHANISMS**, just as a watch is a functioning mechanism, subject to destruction by mistreatment. The biologist will readily admit that the mistreatment of food by cooking destroys the enzymes as functioning mechanisms; however, the chemist refuses to admit that it alters any chemistry.

The organic farmer does not pretend to know how to explain the ramifications and hair-splitting scientific concepts necessary to the establishment of incontrovertible proof of the need for organic foods. The burden of proof is upon those who claim that they can supersede the plan of the Creator, or beat Mother Nature at her own game in the business of organizing inert matter into living tissue. We, the human race, were fed on organic foods for eons before we became chemically half-smart enough to make counterfeit foods. If we use too much of such imitation foods before we learn about their shortcomings, we may never become smart enough to find out exactly **WHY** these counterfeits cannot support life.

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