

## nebulous health food terms: we need relevant legal definitions

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**F**OOD is any substance that is eaten or otherwise taken into the body (usually by mouth) to sustain life, provide energy, promote growth, and meet other expected stresses (i.e., sustain nutrition).

It should be evident from such a definition, that if food, in particular food combinations, are eaten and life is sustained, one of the benefits of food should be to assure health, that is, a general condition of soundness and vigor of body and mind.

No single food in nature (except mother's milk for a limited period) can sustain life and assure health. In fact a food physiologically tolerable and efficacious for one human may be physiologically intolerable to another human. The label "health" food is, therefore, incongruous because a "health" food may not necessarily be healthful. Why is this so?

First, the substance of food is:

1. That array of naturally occurring chemicals which are known to:

- a. be essential to life processes and are called nutrients;
- b. impart the physiopsychological sensations of odor and taste, called flavors;
- c. impart the physiopsychological sensation of perceiving color;
- d. impart the physiopsychological sensation of perceiving texture.

2. None of the foregoing but analytically identifiable chemicals with known psychological and/or physiological effects (e.g., natural toxins);

3. Analytically ill-defined chemicals and, therefore, unknown substances or little understood factors relevant to psychological and/or physiological effects.

Secondly, this admixture of known and unknown chemicals is not only affected by environmental conditions during maturation and handling (be it harvesting or slaughter), but since most food (and definitely all food containing protein) is living tissue at one time or

another, chemical reactions and interactions have and/or continue to occur. In terms of health value, food chemicals, therefore, may have a good, bad, or equivocal effect on the consumer. It also should stand to reason that when the chemicals inherent in food are consumed, they can fail to admix or admix to varying degrees with the chemicals involved in digestion, absorption, and metabolism, and/or effect the physiology of digestion or the physiology of other bodily systems (including the nervous system). Needless to say, if the consumer has chemical deficiencies (congenital or otherwise), physiological idiosyncrasies, or disease, the resultant health value of food chemicals can be good, bad, or equivocal.

Agriculture can be defined as the science and art of promoting or improving the growth of plant or animal materials by labor and attention. When directed to the production of food, this effort can be dependent on the natural environment or can utilize varying degrees of scientific control of the environment. It is possible, therefore, to cultivate the ground for food production with or without the use of extraneous but pertinent chemicals and/or to cultivate food in nutrient chemical solutions with or without inert supporting materials analogous to soil (hydroponics).

With harvesting begins the process of converting an agricultural commodity, such as food, into marketable form. If the process involves some special systematic action or series of special systematic actions, the product can be said to have been processed.

A "natural" food is one which is not artificial, being such by nature that it would grow spontaneously without being tended by man. It is a "wild" food or as labeled by some, an "earth" food. Therefore, food that is tended by labor and attention (agriculture) cannot be natural. Food can either be cultivated in the presence or absence of soil (conventional agriculture as contrasted to hydroponic agriculture) and can either be cultivated in the presence or absence of extraneous manufactured chemicals (inorganic fertilizers and/or organic herbicides, pesticides, hormones, antibiotics, etc.). Therefore, food that is "grown without pesticides and artificial (sic) fertilizers in

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soil whose humus content is increased by the additions of organic matter and whose mineral content is increased by applications of natural (sic) mineral fertilizers" (meaning in the absence of man-applied, manufactured, inorganic and/or organic chemicals) cannot clearly be defined as "organic."

The term "organic" also has been applied to a type of food processing as well as a type of food production. It has been proposed that "organically processed food is food that is grown organically and which, in its processing has not been treated with preservatives, hormones, antibiotics, waxes or other artificial substances." This expression "organically processed" has to be distinguished from the so-called "natural" foods which are not necessarily "organically grown" but are as unrefined as possible and free from those additives associated with specific processing goals (preservation, enrichment, organoleptic, and processing advantages).

It should be evident that what is being marketed under the terms "organically grown," "organically processed," and "natural" are foods either grown and/or processed in a manner unaccompanied by man-applied, manufactured chemicals. One can argue that a single word would be preferable to define such agricultural practices and that the term "organic" has common usage. But one wonders whether a new term defined to mean unaccompanied by man-applied, manufactured chemicals would not be preferable. An important point is that such food is self-determined, that is, "on its own" relevant to maturation and its subsequent keeping qualities. This does not mean that it is free of naturally-occurring chemicals which may be good, bad, or equivocal, only that it is relatively free of manufactured chemicals which may be good, bad, or equivocal. Further, one has to acknowledge the general attitude of many consumers desirous of nonpolluting en-

vironments, including that affecting food. Such consumers can be viewed as being ecology-minded and desirous of food, the quality of which is determined by its own ecology during growth and/or processing.

Since there are no legal definitions for food grown and/or processed without the addition of manufactured chemicals, the opportunity exists to legalize existing terms and thereby add a new dimension in the confusion of definitions, or to adopt and legalize new terms which are in agreement with the facts and less apt to be misleading relevant to health benefits. I would propose that *Ecology Foods* rather than *Health Foods* would be an appropriate alternative. Further, foods grown by a third party claiming to be and certified to be relatively free (zero tolerance is an impossible concept) of manufactured chemicals would be known as ecologically grown foods, whereas foods not grown under such conditions but processed without manufactured chemicals would be considered ecologically processed. A food grown and processed without manufactured chemicals would be considered an ecology food.

In any event, it would be advisable for federal and state legislators to consider not only the denotation of the various terms being used and/or proposed, but more importantly, to consider the connotations such terms have on consumer food attitudes and practices. Because food is the input to nutrition with a definite relationship to health, it should not be usurped with misleading and deceptive terminology. ☞

#### References

THE RANDOM HOUSE DICTIONARY OF THE ENGLISH LANGUAGE. Unabridged Edition, New York, 1966.

Bill S. 3768, *Congressional Record* 118 (106), June 28, 1972.

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BEFORE:

L O U I S   J.   L E F K O W I T Z,  
Attorney General of the State of New York

ALSO PRESENT:

B A R N E T T   L E V Y, Assistant  
Attorney General in charge of the  
Bureau of Consumer Frauds & Protection

S T E P H E N   M I N D E L L, Assistant  
Attorney General of the State of New York

T H E L M A   L I C H T B L A U, Consumer  
Education Specialist of the State of New York

HELD AT:

80 Centre Street, New York, New York on  
December 1, 1972, at 10:20 o'clock A.M.

DR. LACHANCE: "Food is any substance  
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"With harvesting, begins the process of converting an agricultural commodity, such as food, into marketable form. If the process involves some special systematic action or series of special systematic actions, the product can be said to have been processed.

"A 'natural' food is one which is not artificial, being such by nature that it would

grown organically and which, in its processing has not been treated with preservatives, hormones, antibiotics, waxes or other artificial substances." This expression 'organically processed' has to be distinguished from the so called 'natural' foods which are not necessarily 'organically grown' but are as unrefined as possible and free from those additives associated with specific processing goals (preservation, enrichment, organoleptic and processing advantages).

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"In any event, the State of New York must consider not only the denotation of the various terms being used and/or proposed, but more importantly in my opinion, must consider the connotations such terms have on consumer food attitudes and practices, because food is the input to nutrition with a definite relationship to health." Thank you.