



# NATURAL FOOD AND FARMING

OFFICIAL JOURNAL OF NATURAL FOOD ASSOCIATES

## NATURAL FOOD ASSOCIATES OFFICERS

### President

Joe D. Nichols, M.D.  
Atlanta, Texas

### Vice-President

Fred D. Miller, D.D.S.  
Altoona, Pennsylvania

### Vice-President

Joe Francis  
Terre Haute, Ind.

### Vice-President

W. Coda Martin, M.D.  
Hollywood, California

### Executive Secretary

Thomas Lovin  
Atlanta, Texas

Natural Food Associates is a national organization to help you get the kind of food you must have to maintain good health.

A non-profit organization, Natural Food Associates has the following objectives:

1. To educate all people to the values of poison-free natural food grown on fertile soil.
2. To tell them how and where to get this food.

NATURAL FOOD AND FARMING is published monthly by Natural Food Associates, with editorial offices in Atlanta, Texas. Advertising Office, Atlanta, Texas. Ray Sawyer, Advertising Manager and Art Director. Membership in Natural Food Associates is \$5.00 per year, of which \$4.00 is for a subscription to NATURAL FOOD AND FARMING MAGAZINE. Write Frank Allday, Circulation Manager. Second-class postage paid at Atlanta, Texas.

Opinions expressed by authors of articles in this magazine do not necessarily always reflect the opinions of the NFA editorial board.

Notice—All donations made to Natural Food Associates are tax-deductible.

Notices by Form 3579, change of address notices, unverifiable copies, orders for subscriptions, and other mail items are to be sent to NATURAL FOOD ASSOCIATES, Atlanta, Texas.

JUNE 1962

VOLUME 9  
NUMBER 1

## IN THIS ISSUE . . .

### ● Features

Civilization and Cancer . . . . . 7  
By R. A. Holman, M. D.

VOL. 7, NO. 2

JULY, 1960

## In This Issue

### ● CIVILIZATION AND CANCER

Compiled By Royol Lee, D.D.S. . . . . 10

N.F.A. 9-1 & 7-2

Price - 20¢

# CIVILIZATION and CANCER

By R. A. HOLMAN, M.D.

A paper presented to the International Conference on Nutrition and Vital Substances, September 1961. Reprinted Courtesy MOTHER EARTH, the Journal of the Soil Association, England.

*"It is possible that, once discovered, the mechanism of carcinogenesis will be shown to be absurdly simple and measures of control will readily follow."*

GREENSTEIN.

**FOR THOUSANDS OF YEARS** man has searched for the cause of cancer and for means of curing the established tumors; but so far the progress has been very disappointing. Toward the end of the last century, workers, realizing only too well that the progressive increase in the incidence of this disease was associated with the processes of civilization, were beginning to develop methods of control when specialized cancer laboratories were set up with the aim of finding the precise cause. Since that time many hundreds of thousands of experiments have been carried out. As others have said, the former workers with few facilities at their disposal promised little and accomplished much. The present-day workers promise much and accomplish little. Only a month ago an eminent specialist said "the cure of cancer will be found within ten years".

## Use of Cure?

Of what use to man would be the discovery of such a cure? In 1932 Cope<sup>1</sup> wrote: "One in nine die of cancer in the British Isles and the time is fast approaching when one in four or five will succumb to this disease; but long before that, the encroachment of this dreaded enemy may suddenly awaken the nation from its apathy and arouse such a panic of terror as may compel attention to the causes of this scourge". Doctor Berglas<sup>2</sup>, in his recent book, indicates that this time has already arrived; but there is no panic of

terror, at least not on the surface! But millions of ordinary intelligent people are very concerned about this rapidly deteriorating situation. It is altogether humane and desirable to search for a cure, but, as I have emphasized elsewhere (Holman<sup>3</sup>), this can in no way reduce the high incidence of cancer amongst the civilized races.

It is now almost fifty years since experiments were done which demonstrated that certain chemical compounds could produce tumors in experimental animals, and since that time the emphasis has been on the attempt to determine those agents which are the most carcinogenic. But it is now accepted by well-informed opinion, as Holtfreter<sup>4</sup> originally pointed out, that almost any form of long-continued maltreatment of the cell may result in the development of cancer. The only sensible way to look at cancer from the point of view of causation is to consider the common denominator for all the agents—and that is the cell upon which they act.

## Catalase and Cancer

Normal cells can be made to go malignant when exposed to a wide range of unrelated physical and chemical agents. One of the few well-established facts about cancer is that the important enzyme *catalase* (so-called by Loew<sup>5</sup> when carrying out experiments on the curing of tobacco

---

Dr. Holman is Senior Lecturer in Bacteriology, School of Medicine, University of Wales and Honorary Consultant Bacteriologist, United Cardiff Hospitals.

---

leaves) is progressively diminished in the host as well as the tumor. Catalase inhibition is known to be associated with mutagenic processes and the development of viruses, and it is known that many of the proven carcinogenic agents can inhibit this enzyme. In fact catalase inhibition in red blood corpuscles, which results in the formation of Heinz bodies, has been suggested as a rapid method of screening agents for carcinogenic activity.

It is now realized that the widespread distribution of catalase in living cells is essential for their ability to live aerobically. Just as with bacteria (Holman<sup>678</sup>), it is very probable that there is a specific catalase-peroxide balance for each type of animal cell; and that if this is interfered with for a long enough time, then abnormal biochemistry occurs which could lead to the development of cancerous cells (Holman<sup>9</sup>). This view is strongly supported by workers in many countries.<sup>10 11 12 13</sup> It is my contention that the key to the cause, treatment and prevention of cancer lies in this altered fundamental biological mechanism (Holman<sup>14</sup>). Pasteur, almost 100 years ago, pointed out that prevention is better than cure; and this philosophy certainly applies to cancer.

#### Treatment

As far as treatment is concerned, if we want to develop a decent cure, then methods must be devised which will effectively over-oxidize the catalase-deficient cancer cells, resulting in their death without destroying or irreversibly damaging the surrounding normal cells. A perfect method of doing this is going to be very difficult to produce because, in certain sites, e.g. the liver, where the catalase concentration of the normal cells is high, it will be extremely unlikely that the cancer cells growing there can be affected when so well buffered by the surrounding catalase.

Since many physical and chemical agents can alter the catalase-peroxide balance, and some of these are cumulative, then the prevention of cancer, which must be our ultimate goal, can be realized if we see to it that our cells have a high concentration of catalase and that this is not depleted over the years by exogenous and endogenous factors. Doctor Berglas regards

NATURAL FOOD AND FARMING

it as Utopian that we can reverse the trends of civilization in this respect, a truly defeatist attitude. But I believe, just as others like Nobel prize winners Alexis Carrel<sup>15</sup> and Szent-Gyorgi<sup>16</sup> have pointed out in the past, that until we intelligently reform some of our habits of civilization, there will be no measurable reduction in the incidence of this disease.

#### Plan for Prevention

*The plan of attack for the prevention of cancer should be threefold:*

- (1) To increase our intake of catalase.
- (2) To increase the manufacture of catalase by our own cells.
- (3) To curtail the intake of agents which destroy or inhibit our cell catalase.

(1) *To increase our intake of catalase.*

Civilized man now lives primarily out of the can, the bottle and the package. Most of the foodstuffs in these are practically sterile. Our fear of the microbes has gone too far, and it is now high time that whilst being on our guard for certain pathogens, we should view the majority of organisms in a different light. The agents used to destroy the bacteria invariably destroy or inhibit the catalase in the food. Man is the only species of animal now deliberately taking a large part of his food in a form devoid of catalase. It would be to everyone's great advantage if the consumption of fresh fruit and vegetables were to be markedly increased, thus ensuring an adequate intake of catalase and peroxidase. There are numerous references in the literature to the fact that garlic-eating people have an increased resistance to cancer. This is not surprising when one realizes that garlic is very rich in the catalytic systems containing catalase and peroxidase.

(2) *To increase the manufacture of catalase by our own cells.*

It was shown many years ago that, if a normally active creature is forcibly imprisoned in a cage so as to limit its normal muscular activity, then after some weeks the catalase content of the body decreases. Conversely, normally inactive creatures can be made to develop more catalase if forcibly exercised. It is my contention that the chronic habit of limiting the muscular activity of man, by encouraging

Page 8

him to imprison himself in cars, trains and other forms of mechanical locomotion, which has developed on a world-wide scale during the past forty to fifty years, is doing much to diminish his normal catalase level. This one habit, coupled with the widespread, unphysiological practice of relying upon external heat in the form of electric blankets, central heating, etc., is doing a great deal of damage in decreasing the ability of our cells to respond to those normal stimuli which reflexly induce the synthesis of catalase. Puig<sup>10</sup> has already shown that, according to our daily habits, the body catalase level varies; and it is therefore of the utmost importance that our normal animal physiology must be considered when designing our civilized way of living. In general, a higher concentration of catalase implies an increased consumption of oxygen, which provides a catalytic system of prime importance in the detoxication of our bodies.

- (3) *To curtail the intake of agents which destroy or inhibit our cell catalase.*

This is probably the most important mode of attack. In a recent paper (Holman<sup>3</sup>) I described the main exogenous factors to which man is now being deliberately exposed as a result of his very artificial environment. As others have pointed out, civilization is becoming toxic in every sense of the word; and, as man reproduces his species relatively slowly, it will take many thousands of years for him to adapt—if this is ever possible.

### **Modes of Entry**

The toxic agents can briefly be summarized according to the mode of entry into the body, viz. Ingestion, Inhalation, Injection or Irradiation.

*Ingestion.* During the past fifty years many diverse alien chemicals have been added to food and drink. It has been estimated that there are now more than 1,000 such agents. Many of these interfere with the catalase-peroxide balance, e.g. sulphur dioxide, sodium nitrate, sodium fluoride, certain hormones, insecticides, fungicides and dyes.

In my opinion, most of the chemicals added to food and drink for preservation or coloring could and should be

Page 9

abolished. The obvious way to preserve food is to make use of the energy provided by atomic power for deep-freeze transportation and storage. This would ensure a non-toxic food supply with many vital enzyme systems intact (assuming, of course, that the food-stuffs are not covered or impregnated with toxic chemicals as a result of spraying, etc.)

### **Fluoride: A Catalase Poison**

The deliberate addition of the rat-killer, sodium fluoride, to public water supplies with the intent of delaying the onset of dental caries is a most unscientific and unethical measure. Sodium fluoride is a potent catalase poison and is cumulative. There is some recent evidence which shows that those communities in the USA with artificial fluoridation have an increased incidence of cancer. The use of sodium fluoride is fraught with great danger, and in any case it does not deal with the prime cause of dental caries, which is generally recognized as being due to a sophisticated and chemically adulterated food supply.

### **Catalase-Destroying Drugs**

The indiscriminate consumption of catalase-destroying drugs by the civilized races is a matter of serious import. Antipyretics, sulphonamides, barbiturates and certain tranquilizers are all known to interfere with the catalase-peroxide mechanism.

*Inhalation.* The majority of the poisonous chemicals which pollute the oxygen so vital for our health have been placed there by man. Vast amounts of sulphur dioxide and sulphuretted hydrogen—two very potent catalase poisons—are released daily into our environment as a result of the burning of fuels of various kinds. Many other toxic chemicals are ejected in the effluents from furnaces, fires, rail, road and sea transports as well as from tobacco smoking. Some of these fumes contain agents which interfere with catalase, e.g. 3-4 benzpyrene.

### **Use of Aerosols**

The indiscriminate use of aerosols containing insecticides, fungicides, antibiotics, etc., on farms and in domestic institutions is a matter of deep concern to us all. Many of these agents

NATURAL FOOD AND FARMING

interfere with the respiration of cells via the catalase-peroxide mechanism. Their use on such a wide scale is fraught with danger.

It is obvious that the control of air pollution demands our most urgent attention.

**Injection.** Modern therapy of disease processes relies to a large extent on the injection of drugs. The sulpho-namides, which have been known for a long time to inhibit catalase "in vivo" and two of which are proven carcinogens, have been widely used for almost thirty years. Who can tell what part these have played in increasing the incidence of leukemia in children or cancer in adults?

### Detrimental Drugs

Many drugs now used can interfere with cell respiration and there is an urgent need for work to be done in this field before we can assess the long-term risk.

**Irradiation.** X-rays and other forms of irradiation are known to inhibit catalase. X-rays have helped enormously in elucidating certain aspects of disease; but, like most other key discoveries in nature, these have been widely applied for decades without the mechanism of action being understood. At last we now realize that we do not know the threshold below which these rays cease to be harmful, and many authorities are advising the curtailment of mass X-ray programs as well as limiting individual dosage.

### Other Forms

There are many other forms of man-made radiation being placed on, around and in us. What effect these will play in increasing the cancer incidence twenty years hence is unknown, but we have repeatedly been warned about letting this problem get out of hand.

In conclusion it can be said that the greatest problem in medicine which faces man today is the disease we call cancer. This is the result of chronic interference with the fundamental catalase-peroxide mechanism of our own cells brought about by our own folly. The answer to this disease is to have all our energies focused on the preventive aspect. To this end it is

urgently required that a concerted effort be made at the international level to curtail the intake of catalase-inhibiting agents, whether in the air, food, drink, drugs or radiation to which we are exposed. This plan should be coupled with a campaign to increase the intake of catalase by the consumption of fresh, living foodstuffs, together with a re-education of man to use his animal body in the way for which it was designed.

Cancer prevention can show results—if we pull together and reform some of the bad habits so prevalent in our civilized way of living.

### References

1. COPE, J., 1932, *Cancer, Civilization and Degeneration*; p. 235, London, H. K. Lewis.
2. BERGLAS, A., 1957, *Cancer, Nature, Cause & Cure*; p. 72, Paris. L'Institut Pasteur.
3. HOLMAN, R. A., 1960, "The Answer to Cancer"; *J. Soil Association*, October, p. 369.
4. HOLTFRETER, J., 1948, *Symposium No. 2 Soc. for Exp. Biol.* Cambridge Univ. Press, p. 41.
5. LOEW, O., 1901, "A new enzyme of occurrence with special reference to the tobacco plant"; U.S.A. Dept. of Agriculture, No. 68.
6. HOLMAN, R. A., 1954, "Studies on the production of H<sub>2</sub>O<sub>2</sub> by bacteria with particular reference to Anaerobes". *Thesis, University of Leeds*.
7. HOLMAN, R. A., 1955, *J. Path. & Bact.* 70, 195.
8. HOLMAN, R. A., 1956, *Nature*, 178, 424.
9. HOLMAN, R. A., 1961, "The Nature & Functions of Catalase"; *J. Soil Assoc.*, April, p. 607.
10. PUIG, P., 1954, *Los Hidro-Metabolitos y Las Enfermedades de la Civilizacion*; Barcelona.
11. TOTNEY, F., 1954, *Oxygen, Master of Cancer*; Durban, The Knox Printing Co. & personal communications.
12. VOISIN, A., 1959, *Soil, Grass, & Cancer*; London, Crosby Lockwood.
13. ATANASOFF, D., 1959, "Genesis of Viruses"; Government Publishing House Medicina I. Physcultura, Sofia.
14. HOLMAN, R. A., 1957, "On the fundamental importance of the Catalase-Peroxide Mechanism in living cells with particular reference to the problem of Cancer". *Symposium Internazionale Di Medicina*. Trieste. Sept.
15. CARREL, A., 1948, *Man, The Unknown*; London, Penguin Books.
16. SZENT-GYORGI, A. V., 1939, "On Oxidation, Fermentation, Vitamins, Health & Disease". *The Abraham Flexner Lectures, Series No. 6*; The Williams & Wilkins Co., Baltimore. ●

A look at  
Information Compiled  
On Cancer and Some  
Interesting Conclusions—

## civilization and CANCER

Excerpts Compiled By  
ROYAL LEE, D.D.S.

"The studies described suggest that the normal body does indeed possess means for defending itself against cancer and that these means are wanting in patients with advanced disease."

(1) "Sloan-Kettering Institute for Cancer Research Report," 1957 page 35.

"Compare this with the fact that cancer implanted into test animals fails to grow unless they have been fed refined foods for some time previous." (2) R. W. Engel, and D. H. Copeland, *Cancer Research*, volume twelve, 211-215, 1952.

### ALMOST NON-EXISTANT

"Cancer among the North American Indians seems to have been all but non-existent. Hrdlicka writes on page 190: 'Malignant diseases, if they exist at all—that they do would be difficult to doubt—must be extremely rare'.

"The writer heard of 'tumors,' and saw several cases of the fibroid variety, but has never come across a clear case of an epithelioma or other cancer; nor has he as yet encountered unequivocal signs of a malignant growth on an Indian bone.' It may be interesting to note here that with our 'better methods of detecting diseases' cancer still is of small concern among some, at least, of the Southwestern Indians. Clarence Salisbury, M.D. found only 208 cases of cancer among 60,000 admissions at the Ganado Hospital on the Navajo Indian Reservation in a late report—only three of these were cancer of the breast.

In *A Study of the Dietary Background and Nutriture of the Navajo Indian*, Journal of Nutrition, volume 60 Supplement 2, Nov. 1956, in which this lack of cancer was studied and thought, at first, to be some error of nutrition, the

Page 10

following conclusion was deducted: 'Further experimental studies of the effect of the particular diet as here described might conceivably reveal subtle unexpected effects, but in view of the well-recognized differences between racial groups in rate of incidence of cancer and other diseases, it may logically be hypothesized that a genetic influence is a more likely explanation than a dietary one.'

### INTERESTING CONCLUSIONS

"From the two studies above cited some interesting conclusions can be made about cancer among these Indians. Once they did not have cancer—now they do. If genes predisposed the Navajo Indians to cancer, one must conclude that once the genes were good—now they are bad. The question before the house then is what made the genes go bad or what makes these Indians now subject to cancer?

"Hrdlicka certainly wasn't alone in failing to find traces of cancer among the North American Indians. Dr. G.C.M. Godfrey in the *Medical Record*, New York, 1894 testified to the complete lack of cancer among the Arapahoes and Shoshone Indian tribes. Dr. G. B. Kuydendall in *The Medical and Surgical Reporter*, Philadelphia, volume 33, 1275 mentioned that a cancerous disease is seldom seen among the Indians. Dr. George W. Ira, in the *Western Medical Review*, 1896 stated that malignant diseases of the reproductive organs were almost unknown among Indians. Doctor Andrew Currier in the *Transactions American Gynecological Society*, Philadelphia, 1891 wrote concerning the lack of cancer information he had obtained from twenty-eight Indian agencies: 'This teaches us that it is not privation, nor hard work, nor exposure, nor giving birth to and rearing many children which, of themselves, lead to the neoplasms which so afflict civilized women of the world over; the explanation must be sought elsewhere.' Fredrick L. Hoffman, LL.D. addressed the American Association for Cancer Research in regards to Cancer in Native Races in Albany, New York, April 1, 1926 in which was discussed the complete lack of cancer in various Indian tribes. There was a joint meeting of the Medical and Anthropological Societies, November 29, 1905 to discuss the lack of cancer and other diseases among the North American Indians which is contained in the *Washington Medical Annals*, volume 4, 1905-6, Washington, D. C. Dr. Kober, whose observations extended over a

NATURAL FOOD & FARMING

period of eighteen years among the Piutes, Nez Percés, Spokanes, Colville, Coeur d'Alenes, Klamath and Nodoc Indian tribes stated at this meeting that he had never seen a case of epithelioma or other malignant growth of the breast or external tissues in the Indian. At this same meeting Doctor Forwood of the Kansas, Nebraska and Dakotas Indians stated he had never seen a malignant tumor in a wild Indian.

#### VERDICT OF 100 PHYSICIANS

"The above medical journal reports contain the verdict of at least 100 physicians on the early Indian reservations. These were some of the same physicians detecting cancer in the white races at that time. We may have better methods of detecting malignancy at the present time but some, at least, of external cancers were probably just as easy to detect then as they ever will be." (3) *Diseases of the North American Indians—Unpublished Manuscript* by Bob Schmidt, 1959.

"h) Are There Regions with Little or No Cancer?—The question of whether civilization contributes significantly to the rise of cancer was studied among less civilized peoples.

"In the secluded Karakorum region of Asia, far from any civilization, live the Hunzas, among whom diseases are almost unknown. The people living there are sheltered from the psychic and physical stresses to which men are exposed in the more civilized areas. They are untrammelled by technological progress of industry. Their diet is simple and natural, and all remnants of food, together with animal excrement, is given back to the soil as manure. Sir Robert McCarrison, a surgeon in the Indian Health Service, observed a total absence of all diseases during the time he spent in the Hunza Valley. In particular, no cases of cancer came to his knowledge.

Doctor Ralph Bircher of Zurich has studied the conditions of life of these people (16) and attributes their health to the following factors:

- "1. Predominantly vegetable diet,
- "2. Abundance of raw food,
- "3. Prominence of fruit in the diet,
- "4. Abstinence from stimulants,
- "5. Sparing use of salt,
- "6. Restricted food consumption, due to insufficient farmland,
- "7. Observance of a lenten fast.

NATURAL FOOD & FARMING

#### DR. SCHWEITZER BLAMES SALT

"In this connection the preface by Albert Schweitzer is significant. He mentions that when he came to Gabon in Equatorial Africa in 1913, he was surprised to find no cancer among the natives living 200 miles from the coast. Schweitzer attributes the absence of carcinoma and appendicitis to the difference in diet between the natives and the Europeans. He suspected that the principal reason was that the natives consumed no salt. In the course of recent years he has observed cases of cancer in increasing numbers among the natives. This development, according to Doctor Schweitzer, is to be ascribed to the increase of European influences, such as the use of salt, and canned foods.

Doctor Eugene Payne, who examined approximately 60,000 individuals during a quarter of a century in certain parts of Brazil and Ecuador, found no evidence of cancer. This was some time ago and it is likely that the inroads of civilization, together with its modern foodstuffs, may have altered the situation.

"These few accounts of regions and peoples free from cancer deserve attention, for they seem to indicate a correlation between civilizational noxae and cancer. Whether there are any regions still devoid of cancer can, however, only be determined by thorough research based on rigorously controlled statistics.

"A report on cancer research by the National Research Council (USA) emphasizes that there is a direct relation between nutrition and cancer (32).

"In the *Annals of New York Academy of Sciences* (8) and in *Advances in Cancer Research* (119) we find some very significant examples of the effect of diet on carcinogenesis. In rats, exposed to the action of azo dyes, it was found that occurrence of cancer of the liver was far more frequently observed when a diet low in lactoflavin was given, as compared to animals given a normal diet. In another significant animal experiment it was shown that a low-choline diet leads to formation of tumors in the liver. Another example relates to cancer of the thyroid gland which is far more frequent in regions of iodine deficiency than near the sea. Such cancer is observed ten times more frequently in Switzerland than in the United States, where goiter is not endemic

"Cancer of the pharynx, esophagus

Page 11

and oral cavity occurs almost exclusively among men, but in the northern parts of Sweden and Finland women also very often have such tumors. Most of their case histories show a Plummer-Vinson syndrome, attended by anemia, anaerobicity of the gastric juice, as well as atrophy of the mucous membrane of the mouth and pharynx. This syndrome definitely represents a precancerous stage. It is attributed to diet low in iron and vitamins, as people in these northern regions live chiefly on canned meat and eat very little fresh fruit and vegetables.

"The importance of the composition of our diet in relation to the genesis of cancer can be seen in statistical studies which show that obese individuals contract cancer far more frequently than do those of normal weight. These observations have been supported to some degree by experiments with mice, in which a low-calory diet diminished the incidence of spontaneous mammary tumors (119).

"Changes in diet, as observed in animals, affect the frequency of inception of tumors rather than the growth of existing tumors. The frequency of carcinogenesis, according to Tannenbaum and Silverstone (119) can be affected by modification of the diet in the following ways:

"1. By modifying the solubility, rate of metabolism, metabolic products, or amount of the carcinogen reaching the target tissues (the effective tissue dosage of actual carcinogen).

"2. By modifying the susceptibility of the target cells to tumor-initiating action, and

"3. By modifying the development of the initiated, biased cells.

"These latter two influences may involve not only cells but their environment: cell surface, ground substance, stroma, and blood supply."

"We have discussed the defects in our nutrition and have pointed out that even minute changes in the food ingested may be important factors in the

development of cancer." (4) *CANCER, Nature, Cause and Cure*—Alexander Bergias, Member of the Cancer Research Foundation, Institute Pasteur, Paris—1957.

"In administering vitamin E we have employed an ether-extracted crude wheat germ oil prepared by the extraction of fresh wheat germ with ether. All animals fed this preparation of wheat germ oil eventually developed tumors.

"Fourteen rats fed with unrefined wheat germ oil which contained the sediment deposited therefrom developed abdominal tumors. The neoplasm following the ingestion of oil is malignant in nature and microscopically a sarcoma. It is readily transplantable and retains its malignancy through six successive implantations." (5) *Neoplasms in Albino Rats Resulting from the Feeding of Crude Wheat Germ Oil Made by Ether-Extraction*.—L.G. Rowntree, John Lansbury and Arthur Steinberg. From the Philadelphia Institute for Medical Research in the Philadelphia General Hospital—Wheat Germ Oil in Tumor Production—*Proceedings of the Society for Experimental Biology and Medicine*—Volume 36—February-June, 1937 (inclusive) New York.

Excerpts compiled by Doctor Royal Lee—*Lee Foundation for Nutritional Research*, Milwaukee, Wisconsin, December 29, 1959.

- (16) Bircher, R.: *Hunza, das Volk, das keine Krankheit kennt*, Verlag Hans Huber, Berne and Stuttgart, 5th edition, 1955.
- (32) Doherty, B.: *Cancer*, Random House, Inc., New York 1949.
- (8) *Annals of New York Academy of Sciences*, 49, Article 1, pages 1-140, 1947.
- (119) Tannenbaum, A. and Silverstone, H. From Greenstein, J.P. and Hadow, A.: *Advances in Cancer Research* 1:452, Academic Press, Inc., New York 1953.

Reprinted by  
LEE FOUNDATION FOR NUTRITIONAL RESEARCH  
Milwaukee 1, Wisconsin

from

"Natural Food and Farming"

CIVILIZATION AND CANCER

June, 1962 - Vol. 9 - No. 1 - by R.A. Holman, M.D.

July, 1960 - Vol. 7 - No. 2 - by R. Lee, D.D.S.

N.F.A. 9-1 & 7-2

Price - 20¢