

UNDER THE VEIL OF DECEPTION



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***Everything Uncle Sam Isn't Telling You About How Organic Farming,
And Organic Foods Relate to Our Future!***

by Paul Chek HHP, NMT
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UNDER THE VEIL OF DECEPTION
A "Down to Earth" Look at Organics

By: Paul Chek

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INTRODUCTION

Research shows that the produce we obtain from our farms is not only unhealthy, it's not even fit for human consumption (1). And if that's not bad enough, the modern industrial farming methods used on many of these farms is proving to be unhealthy for our environment. To help prove this point, I'm employing the assistance of a single Jolly Green Giant tomato.

For starters, Jolly Green Giant uses a hybrid seed developed from a patented Mexican strain owned by Calgene Inc. This seed is planted in soil that was first fumigated with a powerful ozone-depleting substance called methyl bromide. The tomato is then treated with pesticides developed and manufactured by the Monsanto Corporation, considered by many to be one of the largest polluters in the world. Incidentally, the Mexican farm workers handling the tomatoes earn approximately \$2.50 a day, have no access to healthcare and are given no protection from pesticides used – no gloves, masks or safety instructions.

Once harvested, the tomato is placed on a plastic tray, covered in plastic wrap and packaged in cardboard boxes. This tasteless, nutritionally deficient tomato that has been reddened using ether, is then distributed using refrigerated trucks throughout North America (2). An average raw tomato provides approximately 24 calories (3), yet when one considers the energy it took to make the box, the plastic that wraps the box, the energy used to refrigerate the truck and the fuel used to run the truck, this little 24 calorie tomato just cost the earth at least 500 calories in fossil fuel!

While you're thinking about how much energy was withdrawn from the earth's 'energy bank account' to make our little Mexican tomato, consider that to date, the government has done little, if anything, to address the *true costs* of harvesting by using such modern intensive agricultural methods. Some of the costs I'm referring to are:

1 hectare = 2.47 acres

- **Soil degradation:**

The director of the *International Food Policy Research Institute* declares that 2 billion of the 8.7 billion hectares of agricultural land, permanent pastures, forests and woodlands, have been degraded. Each year 5-10 million hectares become unusable due to severe degradation (4)! The emissions of carbon from severely degraded land added up to at least 70 billion tons of carbon over the past 50 years, which is equivalent to nearly 20% of total man-made

emissions (4). Clearly, if farmers had to pay compensation solely for the damage being done to the soil, they would all be *bankrupt!* Such industrial abuse of our lands is considered by many to be a significant contributor of global-warming.

- **Water Pollution:**

These days, it is rare to find a municipal water supply that has not been contaminated by agricultural chemicals! The Environmental Protection Agency (EPA) has identified over 700 pollutants that regularly occur in drinking water, both from municipal sources and from water taken directly from the earth through wells or springs (5). The EPA only monitors a mere 18 chemicals, which leaves approximately 30,000 unregulated, potentially hazardous pollutants (5)! Due to the cost and time required to test the vast amount of chemicals in our water supplies, we are left to our own volition to determine where to get safe water!

The EPA also reported that agriculture is the biggest polluter of America's rivers and streams, fouling more than 173,000 miles of waterways (6). This is no surprise considering that in the US, approximately 1 BILLION pounds of pesticides, herbicides, fungicides and fumigants are used in agriculture each year! This figure doesn't even include domestic uses of such chemicals for households and golf courses (6,7). But this agricultural vandalism seems to be in vain. Because although there has been a ten-fold increase in pesticide use since 1945, *annual crop loss due to diseases and pests has actually doubled!* To make matters worse, runoff from some pesticide residues remains in the soil, and therefore in our ground water, for decades (6).

- **Environmental Damage:**

It may be impossible to determine the extent to which our eco-system has been damaged by the modern industrial farming machine. The pollution in our waterways from industrial agriculture has become so bad today, when people see a clear blue stream, river or lake, they stop and stare at this uncommon sight!

As you will see below, nature has paid a heavy price at the hands of humans. Animals big and small have been poisoned, killed off and had their habitats completely ruined. In 1980, of the 268 million pounds of pesticides that were added to food crops in California, 7.8 million pounds were found to be carcinogenic to test animals (8)! What are the ramifications when humans eat these chemically laced plants and animals? I'm not sure that anyone knows...or perhaps they *do* know and just aren't telling us.

Now that you've seen the *true costs* of harmful agricultural practices used here in the US, what price do you think Uncle Sam would put on these issues? Quite frankly, it appears to be NONE. There are no indications of pesticide reduction in

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the near future and our good ol' government has been selling the chemicals we've banned here in the US to underdeveloped countries like Mexico. There, the industrial farmers simply grow their crops using our banned chemicals and then export the poisons right to your dinner table! Is this what you want to be putting in to the bodies of you and your children? Read on, it will get better, or shall I say *worse...*

Chapter 1

GOD'S PLAN: CLOSED CYCLE ORGANIC FARMING

When's the last time you walked through nature in an area totally undisturbed by man? The sad truth of the matter is that those places are becoming few and far between. However, if you do stumble upon such a place, I urge you to take note of the awesome perfection of it all! It is there, under the trees, in the meadows, among the bushes and along the streams, you will find the perfect environment for farming agriculture, crops and even livestock (Figure 1). Long before the existence of man, nature farmed *itself* without the use of machines, synthetic chemicals or genetically modified foods. Mother Nature is, always has been and always will be the world's most successful farmer using what is referred to as a closed organic cycle.



Figure 1. Mother Nature, The Farmer

In this type of cycle, nothing is added to the soil that is not completely organic and nothing is taken away that does not eventually return back to the soil. Nutrients are returned by natural means, such as by wind, insects, or animal excretions, or by the natural death of any type of life form (Figure 2).

To better understand the concept of organic foods, we must explore the closed organic cycle and its many components. The numerous drawbacks of non-organic foods will become obvious as we explore what I call "Mother Nature's farming methods."

The Soil Is Alive!

One gram of healthy soil can contain approximately 600 million microorganisms and tens of thousands of different bacteria and fungi species, proving that the soil is indeed alive (9). Unfortunately, many people are completely unaware of this fact

and are therefore unaware of the contribution that living soil makes to plants, animals and man. As you can see in the diamond that represents the soil in Figure 2, organic soil contains both humus and microorganisms.

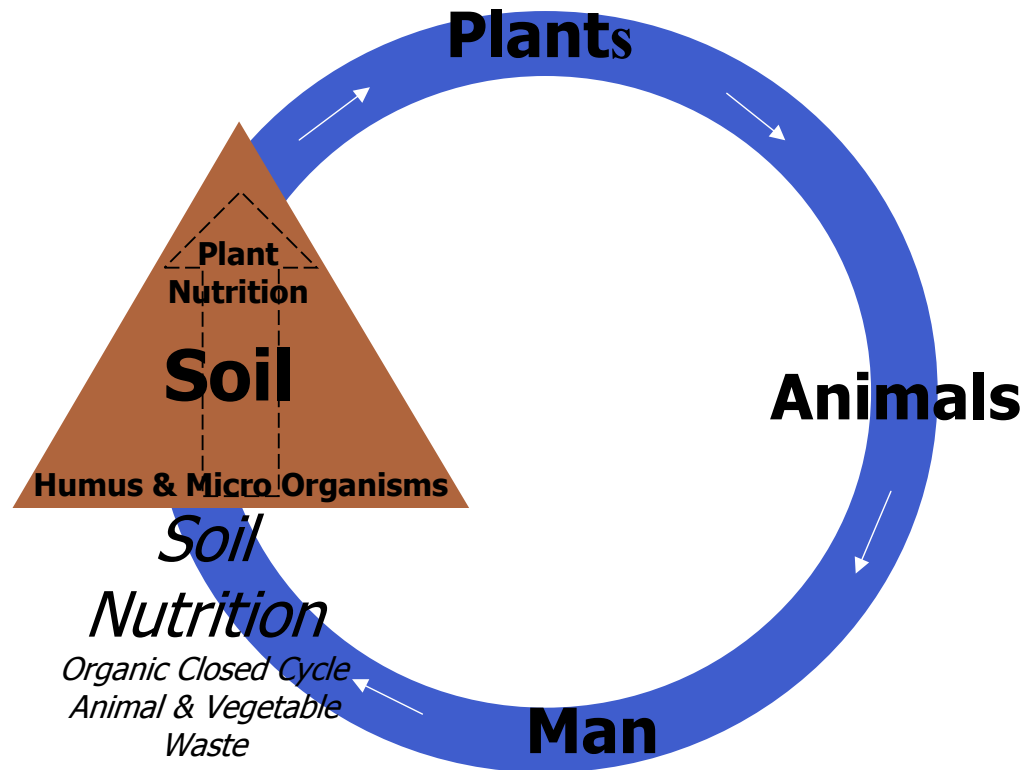


Figure 2. The Closed Organic Cycle or "The Wheel of Life"

All life begins in the soil and a life form can only be as good as the soil from which it came! In the closed organic cycle, no artificial or synthetic chemical elements may be added by man. Any and all life forms emanating from an organic soil will ultimately return to that soil, completing the organic cycle of life.

The relatively unseen, but vital micro-organism population in the soil has been referred to by the world famous organic farming expert Friend Sykes as "the unpaid labour force of the farm, working constantly to break down, not only the organic matter present in the soil, but also its complex minerals, so making them available to plants" (10). Working as unpaid farm workers, soil microorganisms have been shown to be alchemists, demonstrating the ability to create missing elements from the soil by combining existing elements together (10 p. 284). This vital process creates balanced soil from plants.

Humus (hyoo' mäs) - organic substance consisting of partially or wholly decayed vegetable or animal matter that provides nutrients for plants and increases the ability of soil to retain water.

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These all-important soil organisms, when provided adequate nutrients in the form of humus, are reported to provide plants with a powerful disease resistance, sometimes resulting in almost complete immunity from disease. This is something that artificial fertilizers cannot do and will never be able to do (12)! In fact, results released from a 21-year study comparing organic vs. non-organic farming, presented in the British Soil Association's report titled "Organic Farming Food Quality and Human Health," show that the microorganism population responsible for soil fertility and delivering nutrients to plant roots was 85% higher in organically managed fields than in the non-organically managed fields (9 pg. 10-11).

One type of microorganism is soil fungi, which are capable of breaking down and utilizing complex organic substances not directly available to higher plants. These fungi produce what are called *mycorrhiza* (myco = fungal, + rhiza = root), which are micro-rootlets that grow inside the roots of their host plants (Figure 3). Not only do these mycorrhiza formations feed soil nutrients to the rootlets of the plants, they excrete substances that appear to act as a stimulant to plant growth (12). The list of plants identified as mycorrhiza-formers includes tea, coffee, sugar-cane, oil palm, coconut, cocoa, rubber, tobacco, potatoes, vine, hope, clovers, peas, beans and other leguminous crops, as well as many wild plants (12 p. 69). The list is growing as research progresses.

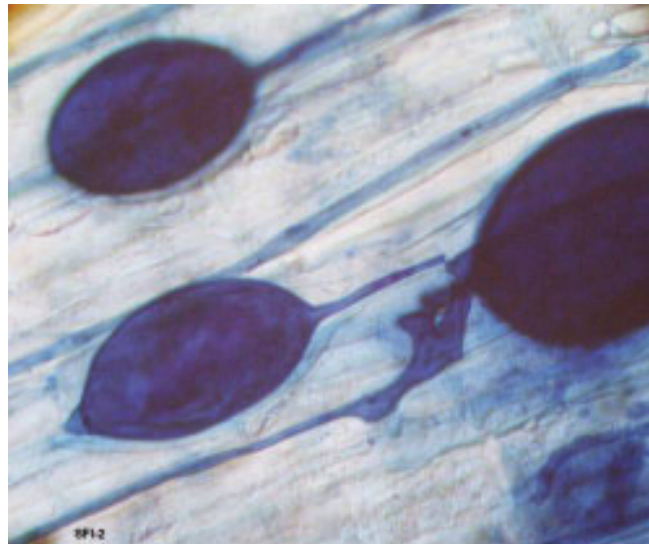


Figure 3. Mycorrhiza Formations In Plant Roots

This is a segment of a feeder root of a plant as seen through the microscope. The blue structures within the root are the nutrient absorbing part of a symbiotic fungus that lives partially within the root cells of host plants. These fungi are called vesicular-arbuscular mycorrhizae, or "VAM" and should be found colonizing a large percent of the root system of most plants. These VAM fungi bring phosphorus, other minerals and water from the soil to the root and protect the root from parasitic nematodes and root rot fungi. Many agricultural soils that have received high inputs of chemicals are deficient in this component of the soil foodweb.

Courtesy of Soil Food Web Inc. <http://www.soilfoodweb.com/index.html>

The Soil Police

Industrial farmers state that the main reason they apply toxic chemicals to their soils and plants is to kill off parasites. While this may be a convenient excuse and though they may actually believe killing soil parasites is beneficial, statistics indicate the opposite. Although pesticide use has risen to approximately 1 BILLION pounds per year in the US, since 1945 annual crop loss due to diseases and pests has actually doubled (6)!

This is not surprising when one considers that one of the chemicals commonly used on crops are called *fungicides*, which are designed to kill fungus formations. As mentioned above, many fungi are extremely beneficial because they deliver nutrients from the soil to the plants. Therefore, it stands to reason that killing fungi will result in plant malnutrition, and what usually follows after malnutrition?

Disease! Unfortunately, diseased plants elicit greater amounts of chemicals from the farmers because they are led to believe that disease is the result of parasite and insect infestations, when the opposite is likely to be true. Parasites are opportunistic organisms and therefore can be considered “Nature’s Police!”

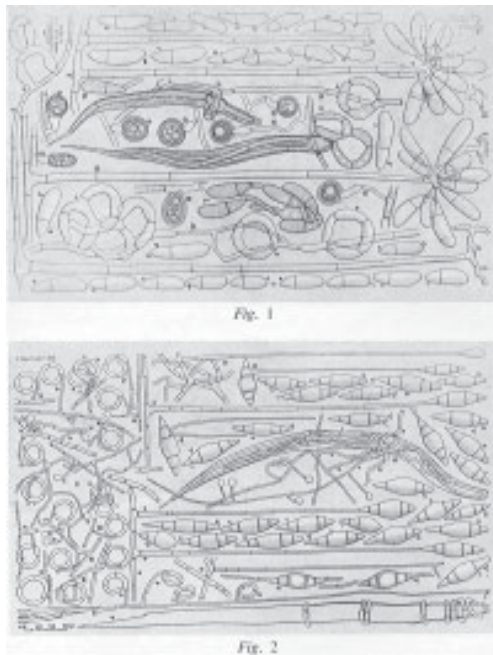


Figure 4. A above & B below. Predatory Fungi

Numerous species of fungi are predatory, feeding off such parasites as eelworms (**Figure 4-A**). From Ref. 12 p. 111). The fungi loop their mycelium (filaments), and wait for eelworms to enter, at which time they excrete an adhesive substance. Once the parasite is captured, the fungi sends it's mycelium through the parasites skin and eats it from the inside (**Figure 4-B**), leaving only an empty hull. Many fungi also eat the larvae of animal parasites present in their dung. *If farmers then are successful in the deliberate destruction of such predators as eelworms by chemical means, it appears (as shown by the statistics) that killing off the plant parasites will starve the beneficial fungi, while using fungicides will only serve to increase the population of the eelworms and similar parasites – both of which would appear to disrupt the delicate balance of nature, not to mention the ill effects upon plant, animal and human nutrition (see Figure 1.)!*

On the other hand, numerous species of fungi are predatory and feed off parasites such as the eelworm (Figure 4). The fungi loop their mycelium (filaments), and wait for an eelworm to enter. When it does, the fungi excrete an adhesive substance and trap the parasite (Figure 4-A). Once the parasite is captured, the fungi sends it's mycelium through the parasite's skin and eats it from the inside (Figure 4-B), leaving an empty hull behind. Additionally, many fungi also eat the larvae of animal parasites present in the animal's dung (12 p. 110-111). If farmers successfully kill off all the parasites, the fungi will

be without food and will subsequently starve. On the other hand, if fungicides are used, there will be no more predators to keep the eelworm population at bay. Either way, we are disrupting the delicate balance of nature and ultimately bringing ill effects upon plant, animal and human nutrition!

Long ago it was made clear by the most highly respected organic farmers that poor husbandry (farming) and use of chemical applications would result in a wide variety of parasitic infestations. In fact, Friend Sykes stated, “Unless a man can really and truly farm, he ought not to be entrusted with the care of the soil, for he will never understand the message that disease conveys.” (10 p. 48)

The late Sir Albert Howard, respected as the world’s most eminent expert on organic farming, held the belief that pests, diseases and parasites are “nature’s professors of good husbandry.” He emphasized that the appearance of pests should be seen as indicators of bad management and thus, means for identifying mistakes and applying corrective measures (13, 14). The corrective measures he referred to did not include the use of additional damaging chemicals. Doing so would only serve to conceal the mistake of bad husbandry and further compound the problem of ecological imbalance!

If Mother Nature were to send out a report card to today’s industrialized farmers, I doubt it’s not something they’d be running home to show their parents. Considering the amount of toxic chemicals being dumped on today’s crops, the seemingly endless damage being caused to the beneficial soil microorganisms, and the fact that our government encourages the use of artificial fertilizers. I think it’s glaringly obvious that Mother Nature would fail them all!

Humus, the Breakfast of Microorganisms

Looking at the importance of soil microorganisms, it is important to understand how they nourish themselves to perform their miracles of alchemy and support plant life. Because most of the soil organisms possess no chlorophyll and have to work in the dark, they must have an energy supply. This is obtained by the oxidation of humus, a complex residue of partly oxidized vegetable and animal matter, together with the substances synthesized by the fungi and bacteria which break down these wastes (14 p. 24).

In nature, humus is manufactured when a specific proportion of organic materials, such as those found on a forest floor, succumb to the actions of a variety of organisms. These organisms, which include fungi, bacteria, microbes, worms and many other classes of tiny creatures, exercise their influence upon the organic materials through rotting, fermentation, heat production, consumption and, ultimately, digestion (15). It is through this process that plant life dies a natural death, just as birds, insects, rodents, and all animals indigenous to a given area eventually return to the earth to become humus.

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In addition to dead animals and plants, humus also obtains nutrients from the excrement of nearby creatures. Animal excrement provides humus with a variety of things including parasites, digested food and undigested food. All of these serve as powerful activators of the microorganisms found in humus. This process is referred to as Mother Nature's *external digestion* (15).

The process of making humus by means of *external digestion* provides four vital functions with regard to the health of plants, which ultimately relates to the health of animals and man:

1. Humus holds water in the soil.

It is estimated that only one cubic foot of bone-dry humus will absorb over 60 pounds (7 gallons) of water! Humus acts like a sponge and will absorb its volumetric capacity without altering its shape or physical characteristics (16). Failure to maintain humus, as when forests on mountain slopes are chopped down, results in the failure of the soil to hold the rainfall and ultimately to be washed away by violent streams.

2. Humus forms a film around the soil particles, causing them to adhere, thus maintaining the crumb structure of the soil.

L.J. Picton gives an example of what can happen when we fail to replenish humus to our farmlands: "The failure to supply humus, as when the parries' store of fertility is exhausted by straw crops with no replenishment, or none except chemical dusts which stimulate crops to extract the uttermost farthing of the soil's capitol of fertility – results in the loss of millions of acres of cultivable land. The particles [of soil] no longer cohered. Fertile fields became the dust-bowl of America." (14 pg. 175) By 1937, water and wind erosion had claimed 250 million acres of farmland, or 61% of total farmland in America. Consider what he was referring to was considered an epidemic back in 1937.

3. Humus provides increased surface of the feeding area for plant rootlets.

One cubic foot of loam (humus made from a clay based soil) provides rootlets approximately one acre of surface area. This is similar to the way the alveolar surface of our lungs increases the surface area for oxygen to enter our body. For example, did you know the surface area of our lungs is the equivalent to two acres (15)? In the same way the alveoli increases the surface area of our lungs, the rootlets provided by the humus creates an enlarged surface area for nutrient absorption, which allows for the growth of a more robust plant.

4. Humus is the food of choice for mycorrhiza and other synergistic microorganisms in the soil.

The application of chemical fertilizers used for pest control is a major antagonist to the microorganisms in soil, reducing their population as much as 85% compared to organic soils (9, 10, 11, 14, 15, 16).

Internal Digestion: The Work of a Farmer's Best Friend... The Earthworm

Whereas external digestion is the process by which humus is manufactured, Mother Nature's *internal digestion* occurs via the work done by earthworms. Although most people associate earthworms with fishing, there is a crucial relationship between the presence of these special little creatures and our health. The presence of earthworm casts (casts are the excretions of soil and organic matter eaten by worms) has long been associated with soil fertility. In fact, nomad tribes of Central Africa would pitch their camp on ground covered with worm casts due to the superior grazing it provided (12 p. 124).

Earthworms are scavengers that seek soil plentiful in organic matter. The ideal soil for earthworms is also ideal for the fungal formations described earlier. Earthworms have a gizzard, which allows them to ingest and breakdown organic matter. The process of their digestion results in the formation of castings, which eventually provides us with high quality humus. *Therefore, earthworms are humus generators!* Their presence and population is often directly related to the fertility and/or quality of the soil, and their population per acre is estimated to be (12 p. 113):

- 0.5 million/acre on unmanured land
- 2.75 million/acre on farmyard manured land
- 8.6 million/acre on grassland untouched by man-made chemicals!

Earthworms provide numerous benefits to the earth, our soil and our health. Here are some of the benefits earthworms provide:

- Earthworms render the soil more permeable to rain, thus decreasing the tendency of wind and rain erosion. Because earthworms dig down to a depth of 5-6 feet (12 p. 125), they are great subsoilers. This means they efficiently bring up nutrients from deeper soils and the material they bring up is vastly different from the crude material resulting from subsoil tillage (plowing soil to loosen approximately 14 inches of soil). In other words, earthworms are far superior to a farmer's plow because they cost less, they don't run on diesel fuel and they don't contribute to the greenhouse effect!
- Earthworms thoroughly mix the organic matter in the soil and prevent it's surface from accumulating in peat-like layers, e.g. old, matted, sour pastures.
- Earthworms are useful in a compost heap. An abundance of them is a sure sign that the compost process is going well and once they begin to naturally withdraw, it is an indication that the compost is ready for use (12. p.113).

Earthworms can produce 10-15 tons of casting per acre each year. Friend Sykes states that earthworm castings are a highly fertile mixture of soil minerals and plant food, and because of its solubility, is immediately assimilable to the plants growing on the land. According to Sykes, "It will therefore be seen that the earthworm

is the most important cultivator on the whole farm. Its populations, under all circumstances, must be maintained, and *no act of husbandry must ever be indulged in which it will diminish its numbers* (16 p. 105).”

What I want you to take away from this, even if you are a city dweller who has never so much as pulled a weed, is that earthworms are vitally important for soil health and fertility. Sykes, who echoes the opinions of all the great organic farmers of past and present, says it best, “Perhaps no greater argument can be advanced against the use of inorganic fertilizers than the fact that they destroy the worm population. The worm has perhaps been man’s greatest friend of all time.”

Humus and Our Future

In 1840, a German chemist named Justus Von Liebig published an essay entitled “Chemistry in its Application to Agriculture and Physiology”. The theory proposed in the essay suggests that everything required by a living plant is found in the mineral salts left by a plant after all organic matter has been destroyed. Unfortunately, many people of his day believed him. Since organic matter is what humus thrives on, and since plants thrive on humus, who actually believes that ‘plant ash’ is all that’s needed for plants to grow?

Although the application of chemical fertilizers initially caused plants to grow faster and helped to increase farm productivity, the peasant farmers of the time were not convinced of the fertilizers’ benefits. These farmers were much more in tune with the soil and it is recorded that the farmers, upon seeing the application of chemical fertilizers, simply shook their heads knowing the inevitable destruction the soil would soon face. Shortly thereafter, the ‘age of science’ reached the farms and eventually replaced the peasant farmers’ intuition and judgment.

Although the ‘farming with chemicals’ mentality was gaining ground, E.B. Balfour, author of “The Living Soil”, stated that World War I fueled this mentality even more by increasing the demand for explosives. During the war, companies that manufactured explosives had to find other markets for raw materials to make their products. The result? Vast amounts of synthetic and chemical fertilizers were manufactured to meet these demands. This was largely accomplished by what was referred to as a “huge advertising campaign” that played to the emotions of the farmers (12 p. 57). During the post World War I era of farmer poverty and market share competition, the success of such a campaign rode on the fact that farmers were susceptible to anything promising greater returns. Ultimately this produced a conditioned response in the farmers (Figure 5).

Despite the “visual proof” of more rapidly growing plants, the peasant farmers remained unconvinced of the supposed benefits chemical fertilizers provided. And sure enough, it wasn’t long before plant quality began to diminish. The use of chemical fertilizers increased the rate of plant growth, but in doing so, increased the rate that humus was being used. Because farmers had discontinued



Industrial Farmers

Chemical Manufacturers

Figure 5. The Conditioned Response!

Eminent agriculturists such as Lady Eve Balfour, Dr. Albrecht, Friend Sykes and Sir Albert Howard worked their entire career to inform farmers of the dangers of chemical based farming, but to no avail. Over 90% of the world's farms operate by conventional means with heavy applications of chemical fertilizers, pesticide, herbicides, fungicides and a plethora of agents that serve to damage our food and eco-system. The chemical manufactures have been successful at purchasing science and massive marketing campaigns, convincing farmers to support their ulterior "financial" motives.

replenishing humus in favor of chemical fertilizers, the destruction of earthworms and microorganisms that produced humus was inevitable.

In the early 1900's, E.B Balfour stated, "As this problem of humus depletion proceeded, troubles began. Parasites and diseases appeared in the crops, and epidemics became rife among our livestock, so that poison sprays and sera had to be introduced to control these conditions" (12 p.58). What would our society be like today if we had listened to the wisdom of early pioneers such as Balfour? Would we have the levels of disease that are present today? Would we live in a society riddled with obesity and insulin resistance? Would we be poisoning ourselves with every bite of industrially farmed produce?

The dilemma of humus depletion and microorganism massacre has continued through the present and, after a century long snowball effect, has resulted in a gradual increase of chemical fertilizer application. Doing so has further degraded soil fertility and has depleted the vast majority of the living soil organisms. This practice leaves our plants to exist largely on what Liebig purported was all that was needed; the elements in the ash of a plant.

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Figure 6. Biodynamic Strawberries

Grown on humus, these strawberries were “incredible tasting”! Biodynamic strawberries from the Tierra Miguel Foundation, Valley Center, CA. Courtesy of Robert Farmer.

Take a look at the beautiful, vibrant biodynamic strawberries in Figure 6. These were grown using ample amounts of humus and microorganisms to create healthy, disease-resistant plants. How do you think the nutrient value of these strawberries would compare with strawberries grown using chemical pesticides and fertilizers, and without the presence of nutrient dense humus? Instead, maybe you should ask yourself how many enzymes, proteins, fatty acids, and vitamins are produced by microorganisms that are fed with *gunpowder* rather than humus?

How Did We Get This Way?

We are running out of fertile farming lands as a result of complacency and our willingness to accept low quality food. This, coupled with the fact that the US and world population are growing at an exponential rate, paints a rather grim picture for us all!

It took from the beginning time until the year 1800 before there were 1 billion people on earth. By 1930, a little over a hundred years later, we added another billion people to the planet. In 1960, only 30 years later, there were 3 billion on earth, and by the year 1999, a mere 39 years later, the number doubled to over 6 billion people! At this rate, there could be 10 billion people on the planet by the year 2030 (17).

These numbers are daunting but they illustrate, in part, how our modern agriculture got to where it is today. Even though the agricultural problems we are facing today occur on a global scale, it's easy to dismiss the role of just one man. This is a mistake, as the following story shows.

In the early 19th century a man named Nichols cleared hundreds of acres of rich, virgin South Carolina land to grow cotton, tobacco, and corn. He was so successful with these crops that he was able to build a large house and educate his entire family using the revenue. However, he had never done anything to the soil, so when it became depleted and his production dwindled, he cleared more land to

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continue growing crops. Neglecting this soil as well, eventually it became depleted and when there was no more land to be cleared, the family fortunes declined.

Nichols' son, now grown, looked at the poverty-stricken acreage, took advice given him to him and moved west to Tennessee. Once there, he cleared 2,000 acres of virgin land for his crops. Just as his father did, the son planted corn, cotton and tobacco, and just as his father did, the son neglected the soil. Not surprisingly, the land became depleted.

With nothing more to grow there, a third generation Nichols son moved to Horse Creek, Alabama, where he purchased another 2,000 acres of fertile soil and raised a family of twelve children on the proceeds from his crops. He did so well there, the town became Nicholsville and Nichols became the owner of a sawmill, a general store and a gristmill (a mill for grinding grain). And just as his father and grandfather had done, he returned nothing to the soil which resulted in barren acreage.

This man's son, a fourth generation Nichols, having seen devastation created where his father had grown crops, decided to move further west and settled in Parkdale, Arkansas, where he bought 1,000 acres of good land on the bayou. Having never learned proper farming methods from any of the previous generations, as the old adage goes, "like father, like son." After World War I, the fourth generation Nichols began farming his new acreage using the new government-recommended artificial fertilizers. For a while, his cotton crops prospered, but soon he noticed that the pest population was much worse than it had been prior to the chemical fertilizers. When the bottom fell out of the cotton market, his son Joe decided that medicine, not farming, was to become his career. (11 pg. 240-241) Little did he know, the new farming methods would drive him so much business!

Four moves in four generations, all started by one man, was responsible for 7,000 acres of depleted and infertile soil. Multiply this story times thousands, and you'll see how quickly we ran out of fertile land to grow our crops!

Are We The Only Ones?

Blatant disrespect for the land would never have been allowed in certain countries such as China or Japan, who have a much higher population base per acre of farmland relative to the US or Europe. Yet, despite an underdeveloped industrialized infrastructure, they have survived, prospered, and in many respects, have far less disease than Americans or Europeans.

In 1900, American Agriculture Professor F.H. King investigated the agricultural methods being used in China, Japan and Korea. In his book Farmers of Forty Centuries, he makes marked observations regarding these countries and the number of people per acre of cultivable land (18). He states that, "The United States as yet is a nation of but few people widely scattered over a broad virgin land with more than twenty acres to support every man, woman and child." Regarding the Chinese,

King goes on to say, “While the people whose practices are to be considered toiling in fields which have been tilled for more than three thousand years and have scarcely more than two acres per capita, more than one of which is uncultivable mountain land.” In short, during the early 1900’s Americans had at their disposal 20 acres of land per person while China had only 1 acre per person. Given those numbers, you can see why Americans flagrantly abused their farmlands while Chinese, having much less land to cultivate, had to use their farmland wisely.

Chinese farmers during the early 1900’s were far more efficient than American farmers. However, China had an equal number of rice acres as the US did in wheat acres, yet China’s annual product was more than double the annual US wheat crop. Even more embarrassing to American farmers, the same farming area that produced rice yielded at least one, and sometimes two other crops each year!

By now you may be asking how the Koreans, Japanese and Chinese farmers were able to accomplish these results from farming. Although they have more rainfall and better water distribution than in the United States, according to King, “These people have with rare wisdom combined both irrigation and dry farming methods to an extent and with an intensity far beyond anything our people have ever dreamed of, in order that they might maintain these dense populations.” It appears we can learn a lot from such Asian wisdom.

Time to Get Serious About Restoring Our Soil Health!

Despite all the damage we’ve done to our soil, the United States still has some of the most cultivatable acres available in the world. In addition, some of the previously destroyed soil is salvageable and can still be restored if we start right NOW!

The first thing we need to do is wake up and realize that chemical fertilizers and chemical pest control are not only failing, they are damaging the ecosystem to a seriously dangerous level! By now, even a reader with no background in farming should be able to appreciate the necessity of maintaining a living soil by way of rebuilding and supporting the microorganism population of our farmlands.

However, the state of America’s farmland is our fault! Yes, that’s right, it’s our fault. Every time we purchase food from stores or companies that degrade our ecosystem by using damaging farming practices, we are contributing to the problem. The United States used to be one of the healthiest and most intelligent nations in the world, but we are permitting it to slip away the more we promote such destructive farming methods!

The production of humus is considered a vital process on all organic farms, and making humus requires that all forms of organic matter are kept in compost piles (Figure 7). Included in these piles is virtually all organic matter that will eventually decompose. From left over foods and kitchen scraps, to animal carcasses and butcher shop scraps, all spoiled foods or damaged crops instantly become useful in the

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Figure 7. Humus – The Vitality Substance

Biodynamic farming expert Robert Farmer (Tierra Miguel Foundation Farm, Valley Center, CA) evaluates the readiness of his humus. For any organic or biodynamic farmer, humus production is a vital and ongoing process.

process of making humus.

Animal manure is a key ingredient of good humus, and serves as an activator of biological organisms. Here in the US, the manure we could be using on our fields is going to waste. Currently, there are many large factory farms raising animals in massive numbers, all of which are producing manure by the truckload. How much manure do you think 30,000 chickens could produce? Or how about 12,000 pigs? “Circle Four Farms” in Milford, Utah, an alliance of the four largest US pork companies is reported to produce hog waste equivalent to 1.8 million people! That’s just shy of the amount of generated by the entire state of Utah with a population of 2 million people! (2 p. 31)

Where does all this manure and human waste material go? I can tell you two things for sure:

1. They aren’t making humus out of it!
2. It sits in huge piles until it is disposed of in landfills or by other means. The obscene part is that in many instances, while it sits in the large piles, it leaches urine and other organic chemicals into the surrounding ground water, eventually making it to our rivers, streams and water supply.

While you’re being disgusted by the previous statement, consider some other points of interest:

- In Britain over 8 million disposable diapers (or nappies as they are called in the UK) are used and disposed of every day. Dirty nappies make up half the waste produced by a one-baby household and results in approximately 1 million tons per year.

About 75% of the used throw-away nappy consists of urine and feces while the remaining 25% is paper, plastic and chemical components, which can take up to 500 years before they fully decompose! The total cost to the British council taxpayer of collecting, transporting and dumping disposable nappies in landfill sites is estimated at £40 million (\$57 million) a year (19). How

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much humus do you think British farmers could make with the feces from all these babies and how much support for the British ecosystem could be funded if we used cotton diapers?

- Human and industrial waste discharged into rivers, as well as agricultural runoff, places a massive restriction on the how much fresh water can be made available. Ninety percent of the developing world's wastewater is discharged untreated into local rivers. In China, 80% of the country's major rivers are so degraded they no longer support any fish; many Eastern European rivers run yellow with industrial poisons. Special treatment of wastewater for non-drinking purposes, however, provides a considerable scope for reducing the pollution that enters rivers, and thus saves water consumption by increasing its productivity (20).
- 300 million gallons of raw or partially treated sewage are discharged around England's coastline each day and 2 million tons of toxic waste is dumped into the sea every year (21).

There is a better and more intelligent way to farm our land! In fact, one of the ways the Chinese and Japanese were able to sustain fertile farm lands for forty centuries of intensive farming is by collecting their feces, which they call "midnight soil" (Figure 8). Sound ridiculous? Outdated? Not so. Currently, 'Sewage farming' in Israel reclaims 70 per cent of the country's sewer water and uses it for irrigation. A project in the Himalayas diverts 6 million liters of sewage per day and uses it to fodder crops (20). If not used for this purpose, the 6 million liters of sewage per day



Figure 8. Composting In Villages

The Chinese, particularly in farming villages, are very involved in collecting compost to be made into humus for the local crops. This includes the collection of "midnight soil".

Source: King (12)

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would otherwise be dumped into the Ganges.

All the great organic farmers, past and present, work diligently to collect any organic refuse in order to make vital, life-promoting humus (see Figures 9 & 10). Chinese farmers even collect humus from riverbeds to add to their farmlands. The Chinese and all organic farmers see this as a very serious business, and if we don't all adopt this serious attitude regarding our farming and our health, our society is in for some serious trouble! Once we ruin all the available land with inappropriate and irresponsible farming methods, we will either have to start fending for ourselves by growing our own food, or eat the government's synthetic, chemically-treated food and suffer the painful consequences.



Figure 9. Compost Receptacle

The Chinese have compost receptacles conveniently located so that everyone can contribute to the necessary act of making humus, which is essential to production of healthy, nutritious disease resistant crops.

Source : King (12)



Figure 10. Composting at Chantry

Composting at famous organic farming expert Friend Sykes' 'Chantry' farm in England, in the late 1940's.

Source: Sykes (10)

(c) Paul Chek, 2002

Chapter 2

ORGANIC: WHAT DOES IT MEAN TODAY?

By now you should have a better understanding of the term “living soil” and its vital importance to our health using closed organic farming methods. Although organic could be defined as “any method which is inclusive of and not disruptive of the closed cycle of organic life, and any foodstuff there derived,” lawyers, politicians, lobbyists, manufacturers, and many others seeking material gain at Mother Nature’s expense require that we have governmental regulations. However, before I travel down that road, I must first cover some basics about organic farming.

The Practical Aspects of Organic Farming and Foods

One of the most important components of any organic farm is the soil. Healthy soil has a multitude of benefits to the organic farmer, his/her crops and the population as a whole. Primarily, healthy soil aids in the maintenance of basic resources for food production including soil, clean water and a stable climate. Second, having good soil will reduce the need for irrigation in agriculture. Lastly, healthy soil will provide an improvement in health via an increase in the food’s nutrient content in addition to a reduction in pesticide residues. (22)

In addition to the soil, another necessary component of a successful organic farm are the soil microorganisms. They are paramount toward the development and maintenance of a healthy, robust crop. Soil microorganisms create the soil’s structure by converting organic matter into humus, which ultimately gives the soil its physical properties of particle aggregation, protection against erosion, water retention, good drainage, aeration, and compaction resistance.

Soil rich in microbial life not only contributes to the health and nutrient levels of crops, it increases the capacity of the soil to combat climate change by oxidizing methane, a potent greenhouse gas. Also, the biological activity of the soil is important for helping release minerals from the sub-soil, fixing nutrients from the air, making nutrients accessible to plants, transporting nutrients directly into plant roots and for its own fertility. (22)

Improving Our Ecosystem Through Organic Farming

The soil and its microorganisms are an integral part of organic farming, but organic farming has far reaching benefits to our entire ecosystem. The benefits apply globally, as proved by the following information from the British Soil Association (23). In

addition, those living outside the United Kingdom can use the numbers to infer what may be happening in their country as well.

1. Climate Change

Organic farming offers the potential to reduce the UK's emissions of agricultural greenhouse gases as well as their annual external costs, currently estimated at over £1 billion (\$1.4 billion). Organic farming also offers the potential to counter climate change through the development of the soil as a major carbon sink.

Carbon dioxide - Numerous studies have shown that CO₂ emissions from organic farming are 40-60% lower per hectare than conventional systems. This is mainly because organic farmers do not use inorganic nitrogen fertilizers.

Nitrous dioxide and **methane** – There is little quantitative data, but experts estimate that organic farms emit less of these gases per hectare because of the lower livestock densities and the greater use of solid rather than liquid manure systems. Nitrous oxide emissions are also reduced because organic farmers do not use inorganic nitrogen fertilizer; fertilized land produces half of the UK's emissions of N₂O.

Energy use – Swiss researchers have found that the same amount of food can be produced by organic farming using 19% less direct and indirect energy than conventional or integrated farm systems; UK studies suggest similar reductions.

Soil bank – The use of inorganic fertilizers in agriculture have caused a loss in organic matter from the UK's soils and the trend is still continuing downward. In comparison, organic farming is based on the use of organic matter to provide plant nutrients. Therefore, organic farming involves increasing and maintaining a high level of soil organic matter through various means. It has been estimated that if soils are developed as a CO₂ bank, they could absorb 15 years worth of emissions from fossil fuels (Rattan Lal, Ohio State University).

2. Air Quality

Air contamination from agriculture is mainly from pesticide sprays and ammonia volatilization (NH₃). Organic farming would address both of these:

Pesticide sprays - Synthetic pesticides are not used.

Ammonia - Emissions would be lower because the avoidance of nitrogen fertilizers and the greater use of solid, rather than liquid, manure systems. Straw bedding minimizes odor, as does the organic practice of composting manures before they are spread. Furthermore, organic farms are normally well below the levels requiring IPPC (Integrated, Pollution, Prevention and

Control). For example, the maximum number of places allowed for poultry is 4,800 per unit (the IPPC threshold is 40,000) while pigs must have sufficient land to spread the manure (170kgN/ha is the maximum allowed). Local odors should therefore be much less of a problem.

3. Waste

Upon conversion, waste is generally reduced using organic farming since the system has less reliance on external inputs, is less intensive, avoids the use of agro-chemicals, and prohibits the routine use of veterinary medicines. Concentrates, for example, must not exceed 40% of the total dairy feed ration. Plastic silage wrap, agro-chemicals, veterinary medicine and animal feed containers should therefore all be reduced. The Ministry of Agriculture, Fisheries and Food (MAFF) manual entitled “Opportunities for saving money by reducing waste on your farm,” encourages all farmers to consider organic farming.

4. Water Resources

Soil from organic farming increases water retention and cuts down the amount of run-off, reducing the need for irrigation. Organic farmers who have reported a reduced risk of drought provide anecdotal evidence supporting this effect.

5. Water Quality and Managing Fisheries

Water pollution is a major problem in agriculture. Nitrates in groundwater often exceed the standard for drinking water. In 1998, 20% of the groundwater sites sampled exceeded drinking water standards for pesticides and three quarters of lake SSSIs (Site of Specific Science Interest) are affected by eutrophication, the reduction of dissolved oxygen content due to high levels of certain minerals. Also, agriculture has caused 17-28% of the major pollution incidents in the last three years. The total external costs of water contamination by agriculture are about £220 million (\$309 million) annually. Organic farming offers cost effective means to reduce all of these problems for both diffuse and major pollution incidents. For example, Wessex Water, a regional water and sewage company providing water supply and sewerage services to parts of England, is providing financial incentives for conversion to organic farming because it ends up being less expensive than investing in cleaning equipment. Organic farming’s beneficial effect on water quality stems from reducing the following:

Nutrient leaching - Inorganic nitrogen fertilizer used for plant nutrition in conventional systems is the most mobile form of nitrogen. Thus in these systems, about 20% of the nitrogen applied is lost. In organic systems, inorganic nitrogen and phosphorus fertilizer are prohibited so plant nutrients are supplied by the biological life in the soil, bacteria and fungi. Bacteria and fungi are the least leachable form of nitrogen, which considerably reduces the nutrient leaching potential. Leaching is also reduced by the fact that organic systems are more extensive, more of their manure systems are solid rather than liquid based, and all organic farmers must have over four months winter manure storage capacity. Additionally, the higher organic content of

the soil means that water retention and drainage is increased, thus, leaching and run-off are reduced. According to calculations published in Europe, the nitrogen, phosphorus, potassium surpluses of organic farms were significantly lower than conventional farms. For example, using numerous farm comparisons, nitrogen leaching rates are 40-57% lower per hectare of organic farmland.

Pesticide contamination – Organic farming eliminates the risk of ground and surface water pollution from synthetic pesticides. This is important both for drinking water and fisheries, as well as for reducing the major cost of water clean up.

Sediment run-off and **bacterial leaching** – As organic farming increases the level of soil organic matter, sediment run-off and bacterial leaching will be reduced.

6. Flood defense

Organic farming offers a major strategic opportunity for avoiding and reducing future flood damage in agricultural areas. This is important for adapting to climate change.

Reducing the risk of flooding – The higher levels of organic matter found in soil on organic farms results in better water retention and drainage, thus reducing run-off and flooding. Anecdotal evidence indicates the effect is significant.

7. Conserving the Land

MAFF has calculated that up to 2.3 million tons of soil is lost every year in agriculture. With 6% of the soil in England and Wales now at a high risk of erosion, and much more land vulnerable to significant off-farm effects, organic farming is of paramount importance to the UK's soil protection objectives.

Soil protection – Soil erosion is caused by the loss of organic matter and exposure. The mode of plant nutrition is important, yet is completely different in conventional versus organic/natural agricultural systems. On intensive, arable farms, the possibilities for soil protection are inherently limited since soil organic matter does not play a major role. Also, the use of inorganic fertilizers and pesticides, which replaces the dependency on organic matter, actually inhibits soil life and thus the development of a healthy soil structure. As in nature, organic farming is based on the use of organic matter in the soil as the plant's nutrient source. In this scenario, nutrients are supplied by the soil life, especially fungal mycorrhiza, as opposed to chemical fertilizer. As a side effect of this, the soil life binds the particles, improving soil structure and improving water retention, water drainage and reducing compaction susceptibility.

In other words, soil protection is necessary in organic farming and achieving

a farm's objectives of manure composting, crop rotation, and avoiding inorganic agro-chemicals. Because organic farming encourages mixed sheep and cattle rearing, which are better for vegetation, organic farming avoids the damaging effects of over grazing. Research has confirmed that organic farms have higher levels of soil life and organic matter, and have reduced erosion potential.

8. Conserving Biodiversity

Agriculture is the main use of land for approximately 74% of the UK's land area. Although traditional farming methods create unique habitats and have increased the UK's total biodiversity, recent developments have reversed this situation in a matter of decades and most farmland biodiversity is now in a state of crisis. Conservationists have identified the main agricultural practices that have caused these declines and, uniquely, organic farming addresses all of these:

- o **Loss of mixed farming:** Nearly all organic farms are mixed.
- o **Specialization:** Organic farms use a much greater variety of crops and livestock because of their closed systems and use of crop rotation.
- o **Intensification:** Organic systems are more extensive.
- o **Use of pesticides and herbicides:** These are avoided on organic systems, and replaced by ecological solutions such as the use of natural predators.
- o **Loss of non-cropped habitats:** Organic farmers aim to maintain populations of natural predators at optimum levels and with good access to the crop, which means more non-cropped areas such as hedgerows and smaller fields.
- o **Autumn sowing:** Organic farms retain a higher level of spring sowing.
- o **Nitrogen enrichment of the soil:** Organic systems are reliant on nutrient supply from the organic matter in the soil and supplied via the soil life, rather than on free nitrogen in the soil.

Organic farming addresses these concerns because it involves using natural processes, including biodiversity for agronomic ends, rather than seeking to fight nature. Among its practices are many traditional approaches, which by definition means that it supports higher levels of biodiversity. Many comparative studies have proven that organic farms support much higher wildlife levels than conventional farms in abundance and diversity. Included in the wild life are plant and animal groups that are known to have significantly declined in recent years:

Plants - Many once common arable flowering plants are now considered rare or are dramatically declining, and include some of Britain's most seriously endangered plants. Conversely, a Danish study found as many as five times more wild plants and over 50% more species on the organically farmed fields. Similarly, a UK study found twice as many threatened wild arable species on organic land.

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Invertebrates - The number of insect and spider species associated with farmland has been cut in half since the 1950s. However, a Danish study found that organic fields had approximately 60% more arthropods on their organic fields. A UK study found up to five times as many spiders and up to twice as many spider *species* on organic land versus non-organic land.

Butterflies - Almost half of the 44 butterfly species breeding in low grassland areas are on the decline. A UK study found that organic farms support twice as many butterflies as non-organic farms.

Farmland birds: Birds have declined by an average of 30% since 1970, while skylarks have declined by 60% alone. A BTO (British Trust for Ornithology) study of 22 organic and 22 conventional farms found 40% more birds on the organic farms while another study found over twice as many skylarks.

It is sometimes suggested that integrated or other non-organic farming methods could achieve similar results. However, these do not address many key practices such as mixed farming and the avoidance of herbicides, and the research findings do not support this claim. The Government has now set ambitious targets for biodiversity. In particular, they want to reverse the decline in farmland birds by the year 2020 and implement over 400 Biodiversity Action Plans. These individually designed plans have been projected to cost £1 billion (\$1.4 billion). Organic farming, however, offers an integrated and cost effective means of reversing these declines, and should be the most long-term and definitive solution.

As you can see here from the material presented by the British Soil Association, there are numerous benefits to organic farming!

Soil is the foundation from which all living things emanate (refer to Figure 2, page 8). Healthy organic soil, complete with its natural microorganism population, produces healthy, disease-resistant plants. Therefore, when animals feed upon the organically grown plants, the animals become healthy and disease-resistant, too. Finally, because man is dependent on all the preceding links of the chain, when we consume organically raised plants and animals we become healthy, disease-resistant organisms.

Sir Albert Howard, who believed the closed organic cycle was the foundation of health, stated:

“The birthright of all living things is health. This law is true for soil, plant, animal and man: the health of these four is one connected chain. Any weakness or defect in the health of any earlier link in the chain is carried on to the next and succeeding links, until it reaches the last, namely man.” (13)

By now, it should be clear that organic farming is anything that maintains the

closed organic cycle, while non-organic is anything that breaks this cycle.

Restoring Fertilization

Restoration of soil fertilization takes place using several means. They are:

- **Application of green manure to produce humus.**

At scheduled intervals, the farmer will grow specific crops to draw nutrients up from certain depths of the subsoil (Figure 11) (25). The choice of which green manure crops he plants is based on which nutrients the last crops drew out of the soil. Additionally, the farmer often chooses to grow multiple plant types at once, for he may also want to fortify the soil in preparation to grow another crop during his next phase of cultivation (Figure 12).



Figure 11. Plants of Varying Root Depth

Organic farmers plant specific crops as green manure or for harvest knowing the root depths and the kinds of minerals that plant will return to the living soil. (Reproduced from Ref. 25)



Figure 12. Plant Variety

A crop of various plants planted by Biodynamic Farmer Robert Farmer as *green manure*.
Tierra Miguel Foundation Farm, Valley Center, Ca.

- **Application of humus to support microorganisms and a living soil.**
Organic farmers compost to develop fresh humus for existing crops as well as for recovering fields. As mentioned above, the application of humus is essential to maintain the microorganism population, which is vital to plant nutrition and plant immunity. Not only is plant immunity a direct result of microorganism population, but the structural strength of the plant is also related to microorganism population.
- **Application of animal manure for microorganism and crop health.**
Many organic farms not only grow a variety of crops, they raise multiple types of animals. The animals each excrete a specific combination of organic substances that are used to feed the microorganism populations. For example, the cow may produce substances that feed a given strain of bacteria, while the sheep, horse and chicken all produce other nutrients that have differing benefits to the plants and microorganisms.

An interesting observation made by both Sir Albert Howard (13) and Lady Eve Balfour (12) was that humus made without the addition of animal products would not produce as healthy a plant as humus that contained animal products. This is not surprising when looking at it from an evolutionary prospective. For millions of years, not only have all living creatures excreted their feces and urine directly on

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the soil, each creature completed its life cycle by dying and returning it's carcass to the soil. I often tell vegetarians that, "Even Mother Earth is a carnivore," because the very plants vegetarians are eating have an appetite for animal flesh!

Even chemical fertilizers are likely to contain products of animal origin. This is because it requires ten tons of crude oil to produce one ton of chemical fertilizer (26). Oil is believed to be the byproduct of vegetation trapped under the earth and ocean floor from millions of year ago (17 p.16). Vegetation of the time would have benefited from the same life and death cycle as today's plant life, which means that even chemically grown plants are not vegetarians!

Crop Rotation

Maintenance of the soil requires that farmers put back as much, or more, than they take out through harvesting and the normal wear-and-tear of farming. This ultimately means that they must be scientific in their use of fields because if a farmer repeatedly grows a single crop, referred to as "mono-cropping," he will eventually deplete the soil of vital nutrients. This is because each plant draws a specific nutrient profile from the soil therein causing soil depletion if the same crop is grown over and over again. Crop rotation not only requires that farmers rotate their crops, but that at scheduled intervals they give the field a rest. The rest periods are generally used to grow green manures and prepare the field(s) for the next scheduled crop. This method of farming is too labor intensive and time consuming for the agro-business farmer who is only interested in money and has no vested interest in the health of the soil!

Biodynamics – Spiritual Organic Farming

Biodynamic foods, grown by certified Biodynamic farmers, are considered by many to be the highest form of human nutrition!

Biodynamic farming, founded by the late Rudolph Steiner, is not just a method of organic farming, it is an integration of spirituality, science, astronomy, homeopathy, farming and other subtle practices that varies from one Biodynamic farmer to the next. The Biodynamic farmer has an intimate spiritual relationship with his land and all that is connected to it.

The Biodynamic farmer operates on five basic principles (27):

1. Utilize crop rotation.
2. Integrate animals into the system whether or not their primary enterprise is horticultural.
3. Recycle all organic matter, emphasizing manure and compost.
4. Use Biodynamic preparations, ranging from special teas to homeopathics for soil, plants and/or animals.
5. Conserve all natural renewable and nonrenewable resources.

Steiner was also the founder of Anthroposophic Medicine, the study of man.

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Anthroposophic medicine philosophically overflows into Biodynamic farming and vice versa; both disciplines believe that evolution of humanity and the planet occur simultaneously. In addition to being spiritually oriented toward their land and its products, the biodynamic farmer's goal is to make the individuality and uniqueness of property apparent in the quality of their products (26). Biodynamic farming is much more about quality than quantity!

According to Robert Farmer, a Biodynamic farmer of the Tierra Miguel Foundation Farm in Valley Center, California (www.tierramiguel.org), Steiner viewed the surface of the earth as the intestines of the earth (28). Interestingly, Biodynamic farmers often consider the activities of the soil microorganisms as our outer digestion, while the activities of digestion within each of us is considered our inner digestion. Therefore, this view holds that the outer digestive process of the soil is ultimately the beginning our own inner digestion.

To better understand the incredible depth and diversity Rudolph Steiner brought to the world, one need only read and comprehend this example of his teachings:

“Those who are able to say, ‘Not I, but the Christ in me,’ will be able to work with the plant forces in the same way as that in which the mineral forces are now understood. Man’s inner being and his outer surrounding work into one another reciprocally; what is outside transforms itself for us, depending on whether our vision is clear or clouded (29).”

Few men, be they leaders, teachers, or gurus, have impressed me to the level and commanded the respect of Rudolph Steiner! If the rest of the farming community and the world were to study and apply his teachings, it is my opinion the world would be a happier and healthier place!

Organic Regulations – A Brief Overview

The National Organic Standards (NOS) contains over 500 pages of text and is too long to print here (a web site containing the document is contained in the Resources section of this book). However, I would like to highlight a few points regarding how our government views organic foods. I should mention that each country has its own laws and regulations, so if you reside in a country outside the US, I encourage you to research.

In the Product Composition section of the NOS, the guidelines for product labeling are as follows:

- (a) Products sold, labeled, or represented as “100 percent organic” must contain 100% organically produced ingredients.
- (b) Products sold, labeled, or represented as “organic” must contain not less than 95% organically produced raw or processed agricultural

- products.
- (c) Products sold, labeled, or represented as “made with organic (specified ingredients or food group(s))” must contain at least 70% organically produced ingredients.

This section of the NOS is very important because there has been, and will continue to be, many large corporations lobbying to dilute the term “organic” to the point that it has no objective meaning. They want to do this so they can include genetically modified foods, gene splicing and numerous other practices not synergistic with the term “organic” to their products. As I will highlight below, there are certain areas of the NOS that leave the door open for some non-organic practices.

The industrial food manufacturers are working diligently to modify the term “organic” because they see the US organic market growing quickly (7.7 billion in US)(30) and want an opportunity to capitalize on the market without having to spend the time, effort and money to achieve the organic standard we currently demand. By getting the government in on their side, the food manufacturers can produce cheap, synthetically based food products and sell them to consumers as “organic”!

This was clearly demonstrated in an article by Michael Pollan in the New York Times entitled “Behind the Organic-Industrial Complex” (30). While visiting General Mills, Pollan asked Senior Vice President Danny Strickland if he believed that organic food was better than non-organic. Strickland responded, “Better? It depends. Food is subjective. Perceptions depend on circumstances.” Pollan received similar vague and noncommittal answers from other executives as well. After visiting General Mills Pollan wrote, “It quickly becomes clear that in the eyes of General Mills, organic is not a revolution as much as a market niche, like menopausal women or ‘ethnics,’ and that health is really a matter of consumer perception; you don’t have to buy into the organic ‘Belief system’ to sell it.”

In order to highlight how these large corporations are literally dangerous to our health, consider the marketing slogan developed by a General Mills marketing executive: “Taste You Can Believe In” (30). This slogan used in conjunction with organic foods could be very deceptive to the uneducated consumer. Major food companies spend the bulk of their research dollars on two things, marketing and how to produce their product cheaper. You’d be hard pressed to find a major food manufacturer who spends money on either how to make food healthier or if it will even sustain life (31). Once this is realized it’s easy to become suspicious of the manufacturers regardless of whether or not it says “organic” on the package! In fact, a literary theorist would call the phrase “Taste You Can Believe In” an empty signifier, indicating that the phrase contains no real meaning (30).

Another section of the National Organic Standards I would like to review is under the heading Handling – Clarifications:

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Use of Nonorganic Ingredients in Processed Products. The nonorganic ingredients in products containing less than 70 percent organically produced ingredients may be produced and processed using ionizing radiation, excluded methods, and synthetic solvents.

Based on what is written here, it's feasible that a number of consumers will be purchasing a healthy "made with organic ingredients" product but may get something quite the opposite. With the law written the way it is, customers may end up eating more expensive products pedaled under a misnomer such as "Taste You Can Believe In!"

It is also imperative for people to realize that some countries allow 5% (or more) non-organic ingredients to be used in packaged products labeled as "organic". This is quite deceptive when you consider that a 10-ounce "organic" pie can have up to 14 grams of non-organic ingredients including food colorings, preservatives, hydrogenated oils, solvents and radiated ingredients! Fourteen grams is almost the equivalent of 1 tablespoon! Have you ever considered dumping a full tablespoon of preservatives, food colorings and solvents in your mouth? How many grams of carcinogenic substances do you want in your body? Worse, if this is the amount of potentially dangerous substances found in a product labeled "organic", how many poisons are we getting in a non-organic food?

Chapter 3

THE ORGANIC PLANT

Now that we have discussed the soil as a living organism and looked briefly at how and why industrialized farming is destroying our soils (and our future), we will delve more specifically into our plants. But before I start, I would like to address the modern fixation on so-called “scientific” studies.

Most of the studies we read in journals have so many constraints, the results are only relevant to the exact situation and parameters within its controlled environment. Most of the environments created by scientists when studying foods are totally unnatural to the plant and therefore unnatural to the people eating the plant. In that regard, consider the following quote from “*The Sciences and Philosophy*” by J.S. Halandane (32):

“To show how a machine works,
you take it to pieces;
but to see how a living entity
functions it must be seen in
its organismal unity and in
its living environment.”

As a clinician, I see great truth and great wisdom in Halandan’s statement. While I am appreciative of the fact that scientists must control certain variables to allow for a particular finding, the conclusions from such studies are all too frequently applied to people living in a completely uncontrolled environment! One only need look around and you will see that science and its controlled variables, while occasionally helpful, has been of limited benefit in the grand scheme of things. How then, do you determine the quality of a food and whose research to believe?

To quote Herbert H. Koepf Ph.D., author of *Research In Biodynamic Agriculture: Methods And Results*, “The final measure of nutritional quality lies in the organism which consumes the food: nutrition quality is not an aspect of the produce in itself, but is determined by the value of the produce for the consumer’s physical — and spiritual — health, growth and capabilities.” (33 p.32)

As you can see from the comments of Halandane and Koepf, we are challenged to determine the quality of a particular food by it’s positive or negative effects on a person consuming it. Each and every one of us are taking part in a large scale study

simply by choosing what we put in our mouths, be it organic, chemical, synthetic or processed. We only need to look at our society's current health status to find out the effects processed food has on the human body. That's one heck of a study people are contributing to!

How Do We Determine Plant Quality?

Pettersson and Engqvist (33 p. 34) created parameters to help evaluate food quality. Such criterion includes flavor, shelf life, resistance to pathogens, and morphological and chemical parameters. To bring some clarity regarding how we might use the Pettersson and Engqvist parameters for assessing food quality, let's look at each characteristic:

- **Flavor:**
Generally speaking, the better quality a food is, the better it tastes. However, this method of testing cannot be applied to processed foods. Modern food scientists go to great lengths to create foods that appeal to our sense of taste by using an entire arsenal of chemicals that are anything but healthy!

A simple experiment you can try for yourself is to go to a large store or farmers' market where there is a choice of foods grown commercially and organically. Choose a food, such as strawberries, and have a friend purchase a few of each – conventional and organic. Then, without you knowing which are which, taste them and see if you can correctly identify which are the organic strawberries versus which are conventionally grown. I wouldn't be surprised if you are correct almost every time!
- **Shelf Life:**
The longer something lasts on the shelf, the worse it will likely be for you! Even when refrigerated, produce loses nutrients at a very rapid rate, suggesting they were probably intended to be eaten fresh. Although there are means of storing foods that minimize nutritional losses, such as lacto-fermentation (34), manufacturers use everything from genetically modified foods to chemical preservatives in order to increase shelf life. These are unnatural means and are therefore not conducive to optimal health.
- **Resistance To Pathogens:**
Sir Albert Howard, who did much of his agricultural research and consulting from the late 1800's to the 1940's, is still considered today as one of the most influential and highly respected organic agriculturalists that ever lived.

While working as a consultant to the government of India (Agricultural Research Station at Pusa, India), Howard conducted extensive research

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to find a way to grow disease resistant plants. He conducted his research in two ways (13 p. 164-5):

1. He studied the techniques of successful Indian farmers that grew nearly disease-free crops.
2. He studied when and where certain plant diseases, parasites and pathologies occurred. His approach was not to make them the “bad guy”, but to understand them and how they work.

By 1910, Howard stated:

“I had learnt how to grow healthy crops practically free from disease, without the slightest help from mycologists, entomologists, bacteriologists, agricultural chemists, statisticians, clearing-houses of information, artificial manures, spraying machines, insecticides, fungicides, germicides and all the other expensive paraphernalia of the modern experimental station.”

After many years of research, Howard arrived at the following conclusions:

1. Insects and fungi are not the real cause of plant diseases, but only attack unsuitable varieties and/or imperfectly grown crops. Their true role is that of censors, pointing out crops that are improperly nourished. In other words, pests must be looked upon as Nature’s professors of agriculture, integral part of a rational system of farming.
2. Even when successful, the policy of protecting crops with sprays and powders is neither sound nor scientific. This procedure merely preserves the unfit and obscures the real problem.
3. The burning of diseased plants seems to cause unnecessary destruction of organic matter, as no such provision of this exists in nature; insects and fungi do the work.

Sir Albert Howard further states:

“This preliminary exploration of the ground suggested that the birthright of every crop is health, and that the correct method of dealing with disease at an Experiment Station is not to destroy the parasite, but to make use of it for tuning up agricultural practice.”

In 1943, while Howard was educating the farming community through lectures, articles and his book “An Agricultural Testament” (14), Lady Eve Balfour was preparing to publish her classic text “The Living Soil” (12). Similar to Howard’s teachings, her book heavily emphasized the need to stay away from the use of chemicals that damaged the soil. In 1947, Friend Sykes released “Humus – And The Farmer” furthering the list of highly respected farmers who were encouraging the world to stay away from chemical pest control and fertilizers. Each of these authors said that unhealthy plants and soil destruction are the result of such practices.

As an example Sykes stated:

“Disease on both plants and animals is on the increase, and more and more chemical pressure has had to be applied to the land in the attempt to obtain high yields. We have more and more pest controls. We have more and more weed killers. We have all sorts of treatments for deficiencies. But in spite of all this scientific apparatus, disease in livestock, as in crops, is assuming alarming proportions (10 p. 46).”

Looking at this from a historical perspective, it’s interesting to note that Howard, Balfour and Sykes were all well known and respected in England, yet in 1957, after years of presentation and press from these great pioneers, the British government spent nearly £24 million of taxpayer’s money to promote chemical fertilizers through subsidization and propaganda (35). At the same time, the US was using approximately 22 million tons of chemical fertilizers a year!

- **Morphological and Chemical Parameters:**

There are over 200 papers evaluating whether or not organic foods are more nutritious than conventionally grown foods. However, a great many of these are unreliable. This is well documented in the British Soil Association’s (BSA) “Organic Farming, Food Quality and Human Health” report (9), where they found that of 99 studies evaluated, only 29 were deemed valid.

Twenty-two of the valid studies compared dry matter, vitamin and mineral content of fruits and vegetables. A summary is as follows:

Studies showing:

- Higher mineral contents in organically grown crops = 7 of 22
- Inconsistent or non-significant differences = 6 of 22
- Higher mineral contents in non-organically grown crops = 1 of 22

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- Higher vitamin C content in organically grown crops = 7 of 22
- Inconsistent or non-significant differences = 6 of 22
- Higher vitamin C content in non-organically grown crops = 0 of 22

NOTE: Vitamins are synthesized by the plant, and levels of vitamins in the produce are dependent on factors other than husbandry, namely: crop size, ripeness of the fruit, variety, and time spent in transportation and storage.

- **Dry Matter:**

Dry matter represents the non-water component of a food - a lower dry matter content indicates a higher water content. This is undesirable for consumers who typically pay for fresh produce by weight. The data shows that consumers may be paying for more water in a non-organically grown product than an organically grown one. Also, not only does a higher water content tend to dilute the nutrient content of produce (9 p. 32-33), it can also result in diminished taste.

Studies Showing:

- Higher dry matter content in organically grown crops = 10 of 19
- Inconsistent or nonsignificant differences = 8 of 19
- Higher dry matter content in non-organically grown crops = 1 of 19

How does this apply to you when you're shopping? Well, quite simply, if you are buying foods that are not organic, you are purchasing inferior nutrition that is likely to be contaminated with chemical residues. Worse yet, with every such purchase we make, we are literally funding the destruction of our soil, our ecosystem and our health!

The British Soil Association writes, "While there are many factors that can influence the nutrient contents of crops, the method of farming is also shown to be a strong influence, with the valid scientific studies demonstrating a trend toward significantly higher mineral contents in organically grown than non-organically grown fruit and vegetables." The literature can be very misleading and one must be careful about making quick judgments based on any one study until you are confident that it was conducted and interpreted correctly. Furthermore, it is important to find out who funded the study. For example, if it was funded by a chemical manufacturer, you may want to determine how their motive may have affected the findings!

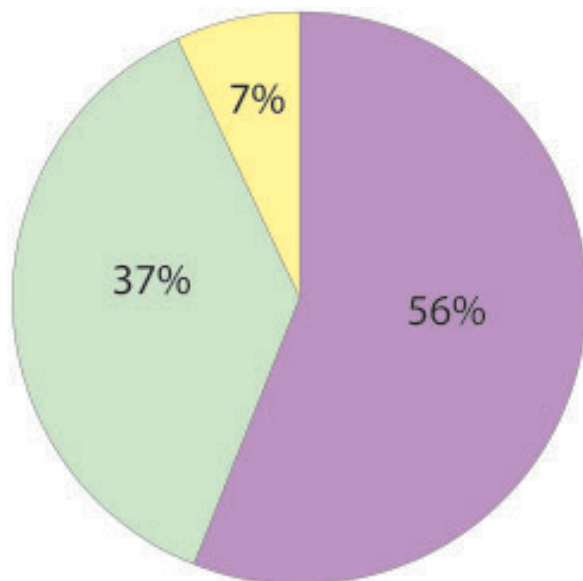
The British Soil Association (9) also quotes the Swiss Institute of Plant Science, who conducted a review of 150 non-English papers assessing the influence of high levels of nitrogen fertilization on the vitamin contents of crops. The authors reported that the majority of studies were, "Surprisingly consistent with respect to the effect of nitrogen fertilizers on some vitamins." Namely, high nitrogen fertilization decreased the concentration of vitamin C in many different fruits and vegetables, among them potatoes, tomatoes and citrus fruits, which are major sources of vitamin C in many

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societies (9). These same authors found that organically grown crops were higher in vitamin B1 and that fertilization of crops with cow dung could significantly increase vitamin B12 levels.

While there are numerous additional studies available comparing organic to non-organic foods, I would like to highlight a few other trustworthy studies. In some cases, the findings are a summary of numerous studies and give a meta-analysis. All of these papers, like the BSA report, are valuable in helping us formulate an opinion. However, to get the best idea of the benefits of organic food, try eating it for one month. That way you are your own Petri dish and no one can argue with your personal results!

“Nutrition and Biodynamics: Evidence for the Nutritional Superiority of Organic Crops” by Virginia Worthington MS, ScD, CNS, reviewed 1230 published comparisons between organically grown and conventionally grown crops (36) (Table 1). The results indicated that organic crops had higher nutrient levels and/or lower toxicity levels in 56% of the comparisons, while the conventional crop was better only 37% of the time. Biodynamic crops fared a little better, showing superior nutrient content 59% of the time and conventional foods being better only 27% of the time. With regard to these numbers, Worthington stated “the results are significant since the organic crop has the better nutrient content the majority of the time. Overall, this pattern suggests that any nutritional benefits that organic food might offer would occur often enough to be useful to a consumer and that biodynamics has a slight edge in that regard.” In her comparisons of biodynamic, Worthington also pointed out that organic and conventionally farmed produce that the excessive quantities of nitrogen presented to the plant by conventional chemical fertilizers cause the plant to produce more nitrates, less vitamin C and poorer quality protein (36).



Organic Better = 56%
Conventional Better = 37%
No Difference = 7%

Table 1

A summary of 1230 published comparisons between organically grown and conventionally grown crops.

Source: “Nutrition and Biodynamics: Evidence for the Nutritional Superiority of Organic Crops” by Virginia Worthington MS, Sc.D., CNS. *BIODYNAMICS* 224, July/August, 1999 (36).

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When Worthington compared nutrient levels of organic crops to non-organic crops, she found that organics were more nutrient dense 10-20% of the time (Table 2).

Mineral	All Organic % Difference
Vitamin C	+ 22.7%
Iron	+ 17.2%
Calcium	+ 30.8%
Phosphorous	+ 12.5%
Sodium	+ 19.6%
Potassium	+ 14.1%
Magnesium	+ 24.4%
Beta Carotene	- 0.3%
Nitrates	- 33.9%

**Table 2. Nutrient Differences
of All Organic Crops vs.
Conventional**

The figures demonstrate the difference between all organic samples and conventional samples. Note the significant reduction of nitrates in organic crops!
(Source: 35)

The Haughley Experiment, considered to be the longest organic farming experiment ever run, analyzed vitamin B1, B2 and B3 content over a six year period. Samples were taken from wheat, oats, barley, beans and peas grown on either organic, mixed (animal manure and chemical), or stockless (no animals) soil conditions. As you can see from Table 3, the vitamin B content for the organically grown produce was either higher or the same as from the other farming methods most of the time.

Vitamin B Content (average of six years,1955-1960)	Wheat	Oats	Barley	Beans	Peas
Vitamin B1(Thiamine) mg./100g	O 0.90	0.70	0.80	0.30	0.50
	M 0.80	0.70	0.70	0.40	0.50
Vitamin B2(Riboflavin) mg./100g	O 0.12	0.15	0.15	0.14	0.13
	M 0.12	0.13	0.14	0.13	0.09
Nicotine Acid mg./100 g	O 5.2	2.4	9.1	2.8	2.8
	M 5.2	2.4	8.2	2.7	2.8

Table 3. Vitamin B content

O = Organic, M = Mixed.

Source: *The Living Soil and the Haughley Experiment*, E.B. Balfour, p. 311. Faber and Faber Limited, London: 1943

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When the protein content of cereals was analyzed, the trend seemed to be the highest from the organically grown foods (37 p. 331). However, this is not always the case. When looking at the Haughley Experiment and many other studies, it is evident that there are numerous incidences where protein content is higher from conventionally grown farms than from organic farms. This was noted early on in the Haughley experiment when it was found that cows fed organically grown produce ate less but consistently produced more milk. This led to investigations of protein quality.

It is now known that the *quality* of protein is most important and, according to current knowledge, that depends on the amino acids composition. Plant proteins may contain certain amino acids essential to animal nutrition. Whether they do or not depends largely on the soil conditions in which the plant is grown, because the enzyme systems which control cell metabolism are dependent on trace minerals and the availability of these to the plant is dependent on soil microorganisms (37 p. 13). In fact, when soils were analyzed and compared for trace mineral composition, there was clear evidence that organic soils were superior (37 p. 331).

Another pioneer, Weston A. Price, recognized soil depletion as a key source of decreased plant protein quality as recorded in his now famous text “Nutrition and Physical Degeneration” (40). In his book Price states, “The insufficient provision of calcium and of all requisite elements usually associated with calcium does not permit the synthesis, by internal performances of plants, of the proteins and many other compounds of equal nutritive value.”

Soil depletion in England was identified by Sykes (10) in a 1946-1950 study on his organically produced milk. The British government was concerned with the declining nutrient density of British milk when it was identified that milk coming from “Chantry” (Sykes’ Farm) was far superior in both fatty and non-fatty solids. After investigation, it was found that not only was the protein content of the organically produced hay he fed his cows much higher, but his cows produced milk that was an average of 20% higher in protein and was much higher in butter-fat and non-fatty solids as compared to the conventional farmers were producing at that time (10 p.106-10, p.235).

The depletion of our soils makes it quite likely that anything we grow on them will also be depleted. This is because organic farming restores and improves soil quality to its living potential and any other type of farming is merely man’s attempt to outsmart Mother Nature – something we will *never* accomplish! As an example, Table 4 highlights the change in mineral content of vegetables between 1963 and 1992 (39). In addition, Shukla also shows the decline of mineral content in traditionally grown fruits and vegetables over a 50-year period (Table 5) (39).

Though there are many medical professionals that will tell you we get everything we need from three balanced meals a day, it’s obvious that this is no longer the case. This is apparent by simply looking at the current state of health in many of

Mineral	Av. % Change
Calcium	-29.8
Iron	-32
Magnesium	-21.1
Phosphorous	-11.1
Potassium	-6.5

Table 4.
Change in mineral content in vegetables between 1963 and 1992

Changes in mineral content in produce are very likely to represent changes in mineral content in our soils.
 (Source: 39)

	Magnesium	Iron	Copper	Sodium	Potassium
Vegetable Ratio	-60%	-80%	-20%	-60%	-90%
Fruit Ratio	-90%	-70%	-60%	-90%	-80%

Table 5.
Average % loss of mineral content in traditionally grown fruits and vegetables over an approximately 50 year period

When one considers that minerals and trace minerals in our foods act as catalysts in a huge number of chemical reactions in our bodies, it become apparent that *diminished nutrient intake may very well result in diminished physiological efficiency and function!* Because organically or biodynamically farmed soils are high in humus content (organic matter) and are highly maintained without the use of chemicals which suppress plant supportive microorganisms, it is logical that mineral content in plants grown on such soils will be superior, *thus more supportive of life.* (Source: 39)

the modernized countries. For example, the United States spends more money on healthcare than any country in the world, yet they rank 24th in life expectancy (38). We are obviously not doing the right things if that's where we are today.

Organic Produce and Secondary Nutrients

Not only are there major differences between organic and conventional foods with regard to primary nutrients such as water, fiber, protein, fat, carbohydrates, vitamin and minerals, there are also notable differences in the amount of secondary nutrients. There are anywhere between 5,000 and 10,000 secondary compounds in plants, sometimes referred to as 'secondary metabolites' or 'phytonutrients' (9 p.

41). Secondary include four general categories of compounds:

- Phenolics
- Terpenes
- Alkaloids
- Sulphur containing compounds

While secondary nutrients have not been classified as, or known to be *essential* for health, there is a wealth of information suggesting they have numerous benefits to health. The British Soil Associations “Organic Farming, Food Quality and Human Health” report (9) cites 57 references supporting both increased levels of secondary nutrients in organic produce and the beneficial effects they have on humans. For example, researchers from Copenhagen University suggest that organic food may be better at protecting us from cancer. Researchers have found high levels of phenolic compounds in organic crops and according to the researchers, the phenolic compounds are ten times more efficient at mopping up cancer-causing free radicals in the body than other antioxidants such as vitamins C and E (41 p. 25).

The beneficial effects of secondary nutrients are well known among many natural medicine doctors and practitioners. In fact, there are numerous doctors and clinics treating the ill by using organic foods for their healing effects, many of which are attributed to superior secondary nutrient content and quality.

Life Force Energy: The Invisible Ingredient

Plants grown using the closed organic cycle have been shown to exhibit superior Life Force over plants grown using conventional methods. At this point, it should be clear that plants (like humans) need a balanced diet in order to fully develop, and that microorganisms are critical for optimal digestion and immune health. An organically grown plant produces healthy proteins, carbohydrates, vitamins, minerals and secondary nutrients. As I pointed out earlier, any cause of dysfunction within the living soil later expresses itself as diseased plants, which are soon targeted by Nature’s Police – parasites and disease. Mother Nature deems malnourished plants as substandard life forms and feels they are more useful as fertilizer (organic material) than something to be consumed by an animal or human. Therefore, they perish at the hands of disease.

Healthy vibrant plants and trees produce healthy, high-quality produce. This produce provides the animal or human being that eats it with what is often referred to as “Life Force” energy. This type of energy is used in varying ways by many different authors, all having different interpretations for their readers.

Life Force: Food vs. Non-Food

Each time we eat something, it requires processing by our digestive machinery. The entire process of digestion, beginning with mastication and ending with elimination, requires the expenditure of both energy and bodily reserves. For example, aside from the mechanical aspects of digestion and the caloric expenditure to accomplish

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it, there is an expense of bodily reserves such as amino acids, enzymes, minerals, vitamins, water and the many actions of fatty acids.

Every time we choose to eat a particular substance, the body must go through the processes of digestion, both to liberate energy from that foodstuff and to secure the nutritional elements that foodstuff offers the body. The problem begins when we regularly eat foodstuffs that cost more in the process of digestion and elimination than they do delivering useable nutrients. Take for example, the tomato referred to at the beginning of this paper.

The tomato grown in deficient and pesticide laden soils, was fed by chemical fertilizers and will absorb noticeably more water than its organic equivalent. This results in a 25 calorie tomato imposter, complete with a toxic cocktail requiring a vitamin and mineral expenditure just to help detoxify your body. Additionally, the mechanical actions of digestion result in the usual breakdown of epithelial tissues in the gut, which requires even more energy and resources to replace it.

People eating a balanced, nutrient-rich diet can probably handle an occasional insult like this. The problem begins when most everything a person eats is highly refined, highly processed and costs more to digest than it does from delivering nutrients. These are what I call “non-foods”. There is a finite point at which the percentage of non-foods consumed is greater than life giving foods and subsequently, the Life Force of the human organism begins to diminish. This is the state many people around the world live in and the situation seems to be getting worse.

To illustrate this point, consider how fast food restaurants such as McDonald’s can move into a new area and supply non-foods cheaper than local farmers can supply real food. While on a lecture tour in Tahiti, I visited a number of rural areas as well as some ‘modernized’ towns. I noted that in the rural areas, the natives were beautiful human specimens displaying low body fat, marvelous bone structure and excellent posture. However, when I was touring the town of Papeete I was shocked to find numerous obese and unhealthy people (Figure 13).



Figure 13. Natives of Tahiti!

As I walked down one of the busy streets in town, I noticed a large group of people hovering around a

The natives of Tahiti, revered all over the world for their physical beauty, have fallen prey to large, junk food peddlers like McDonald’s. In the townships, the overweight, out of shape Tahitian is the norm; much like American cities!

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particular building. Curious as to what the attraction was, I ventured toward the crowd. To my surprise (and disappointment), the cause for this large gathering was a McDonald's restaurant. It was then that I began to understand why this town seemed to have such a problem with obesity while the rural areas seemed to be producing such healthy individuals.

As I traveled further into town, I came across the local farmer's market and realized one of the reasons why McDonald's has been so popular (Figure 14). The farmer's market sold tubers for 300 francs and bananas for 200 francs, but right down the street you could purchase a McDonald's cheeseburger for less than a banana! For only 80 francs more than a tuber, you could buy a Filet-O-Fish, and for another 10 francs, a Big Mac! (Figure 15).



Figure 14. Locally Grown Produce in Papeete, Tahiti

BURGERS			
Big Mac..			390
Double Cheese..			380
McFeast Deluxe..			410
McChicken..			390
Filet-O-Fish..			380
Cheeseburger			190
Juniorburger			170
BOISSONS			
<i>Coca-Cola</i>	<i>3rd Coke</i>	<i>Sprite</i>	<i>Fanta</i>
ENFANT	PETITE	MOYENNE	GRANDE
90	100	160	200

Figure 15. Food Prices at McDonald's in Papeete, Tahiti.

Note that local tubers were 300 francs per punnet and local bananas were 200 francs for a pile. At McDonald's, right down the street, you could purchase a Cheeseburger for less than a few bananas (see Figure 15 opposite). For only 80 francs more than several tubers, you could buy a Filet-O-Fish and for another 10 francs, a Big Mac! A devastating proposition for the local farmers, not to mention the health of the local people!

Life Force – “Living Energy”

The term “Life Force” has been called many different things by various doctors, healers, medicine men, clairvoyants, yogis, and farmers. Some of these include (42):

- o The Vital Fluid of medieval alchemists
- o The Animal Magnetism of Mesmer

- o The Odic Force of Reichenbach
- o The Nervous Ether of Richardson
- o The X Force of Eeman
- o The Bio-cosmic Energy of Brunler
- o The Orgone Energy of Reich
- o The Prana of east Indian Yogis and metaphysics
- o The Munia of Paracelsus
- o The Chi of Chinese martial arts masters and healers
- o The Human Energy Field as described by Hunt (43)

While some of these terms may be unfamiliar to you, it will be helpful to look at a term that embodies all the various linguistic expressions of “Life Force”. The term “Vis Medicatrix Naturae” is defined as “the healing power of nature; the natural curative power inherent in the organism” or “the vital force” (44).

Vis Medicatrix Naturae has been functionally described by professor James Ward:

“The fundamental difference between living and non-living matter is that in living matter there is always something else present (which for want of better understanding we may call ‘the vital force’) in addition to the properties found in non-living bodies. This additional ‘something’ endows living bodies with a tendency to disturb existing equilibrium, to reverse the dissipation processes which prevail throughout the inanimate world, to tore up and build up where they are ever scattering and pulling down; the tendency to conserve individual existence against antagonistic forces, to grow and to progress, not merely taking the easier way, but seemingly striving for the best, retaining any advantage secured and working for new ones” (42).

It is suggested that there is a vital Life Force in every organism, which not only sustains life but also maintains it against adverse factors seeking to destroy it. Richard Gerber, M.D., author of “Vibrational Medicine”, says that disease can first be seen in the subtle energy fields of the human body (49). It is also this possession of the Life Force that marks the difference between organic and inorganic life (42).

Many people today are completely ignorant of the fact that foods they eat are improving their level of life force, maintaining their current status (which may range from vital health to ill health), or detracting from their life force. The life force of foods can be measured, albeit not by conventional scientific standards, through a technique called dowsing. Dowsing, a technique used worldwide since as long ago as 6,000 B.C. (45), incorporates a stick, rod or pendulum as a means of receiving feedback. The dowsing tool informs the dowser of changes in the electromagnetic fields around them. When a pendulum is used for dowsing foods, the life force energy of the food is picked up by the dowser’s body (most likely through the solar plexus) and the signals are amplified via the motor nerves to produce minute

movements of the hand holding the pendulum. These subtle movements are then registered as visible changes in the movements of the pendulum (10). Proof that the body can pick up and amplify various signals through pendulum movements was first demonstrated by Jan Merta. Merta's laboratory experiment indicated that minute muscular movements occur in the area of the wrist a fraction of a second after a change in the encephalograph had been registered (11 p. 301).

The technique of dowsing food to determine the level of life force energy is said to have been developed by Frenchman Andr'e Bovis, widely known for his experiments with pyramids (10 p. 299). He found that he could tell the intrinsic vitality and relative freshness of different foods within their protective skins because of the power of their radiations. By placing a piece of fruit, vegetable, or any kind of food at one end of a ruler, Bovis could watch his swinging pendulum change directions at a certain distance along the ruler, which gave him an indication of the degree of the food's vitality. According to Bovis, the limit of any object's radiance is overcome at some point by the earth's general telluric field surrounding it, and can thus be measured.

Using Bovis' technique of dowsing foods, Simoneton, an engineer during the first World War, was able to save his own life after having undergone five operations. One dark night while lying on a stretcher by a hospital train, he overheard two medics whispering that he was so severely tubercular that there was no chance for recovery. A forced diet of rich food ruined Simoneton's liver and given him numerous other unpleasant side effects. Barely surviving the ministrations of the medics, Simoneton used the Bovis' system of selecting fresh and vital foods by dowsing to rid himself of TB and its side effects. Not only that, but he became so healthy that years later, at sixty-six he still fathered children, and at age seventy was still playing tennis.

Bovis' system of measuring the vitality of a food was based on the magnitude of the pendulum swing. Using this method, Bovis had classified the vitality of various foods in terms of angstroms; a swing of one centimeter was equivalent of 10,000 angstroms. Adopting Bovis' system, Simoneton measured the vitality of a number of foods, placing them into four general classes (11 p. 304-7). In the first category he placed foods whose radiant wavelength he found to be higher than the basic human wavelength, from 6,500 angstroms to 10,000 or higher. The second category contained foods radiating from 6,500 to 3,000 angstroms, and the third category, which contained cooked meats, sausages, coffee, tea, chocolate, jams, fermented cheeses, and white bread, had such low radiation, he found they do one little for one's health. The fourth category contained margarines, preserves, alcohols, liquors, refined white sugar, and bleached white flour, and was considered to be completely dead.

Some of Simoneton's vitality measurements include:

- Most fruits run between 8,000-10,000 angstroms; canned fruits were dead.

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- Potato, which has a radiation of 2,000 angstroms when raw (possibly from growing underground, hidden from the sun), mysteriously rises to 7,000 angstroms when boiled and to 9,000 when baked. He notes that vegetables in general should be eaten raw, two raw carrots being better than a plateful of cooked ones.
- Legumes such as peas, beans, lentils, or chickpeas, rate 7,000 to 8,000 angstroms when fresh.
- Wheat has a radiance of 8,500 and rises to 9,000 when cooked. As mentioned above though, white flour is dead!
- Olive oil has a high radiance of 8,500 angstroms and even six years after pressing still gives off around 7,500.
- Ocean fish and shellfish (which he stated as good foods and best eaten raw) radiate at 8,500 – 9,000 angstroms, dropping down to between 6,500 and 3,000 when cooked.
- Butter (probably fresh) radiates at about 8,000 for about 10 days, falling to the bottom in about twenty days.
- Fresh milk measured 6500 angstroms, losing 40% of its radiation by the end of 12 hours and 90% by the end of twenty-four hours. Simoneton found that pasteurized milk was dead, as was true for pasteurized fruit and vegetable juices.
- Garlic juice, when pasteurized, coagulated like dead human blood and its vibrations dropped from 8,000 angstroms to zero.
- Interestingly, freshly killed pork radiated at 6,500 (as does all animal meat), but once it has been soaked in salt and hung over a wood fire it's radiance rises to 9,500 or 10,000 angstroms. Simoneton states that other cooked meats are an exercise in tough digestion, wearing out rather than vitalizing the eater and requiring him to drink coffee to keep from falling asleep.

Bovis also found that some waters could radiate as high as 156,000 angstroms. He noted that water was capable of being vitalized by association with minerals, human beings, or plants (10 p. 303). Bovis' findings are congruent with current research by Masaru Emoto, who had demonstrated that water is easily influenced by, not only the health of the environment, but our thoughts as well (46). For example, Figure 15 shows a photograph of a water crystal from the Fujiwara Dam before offering a prayer. In Figure 16, the same water is shown in crystal form after Reverend Kato rendered prayers to the water! Mr. Emoto's research is not only groundbreaking, but presents a powerful message when one considers that an adult human being is 70% water and that modern agricultural methods are poisoning our water. We can only speculate the potential damage this is doing to our bodies, both through our food supply and by direct consumption!



Figure 15. Photograph of a water crystal from the Fujiwara Dam before offering a prayer

Source: The Message From The Water By Massaru Emoto, (46). Reproduced with permission from SourceBooks.

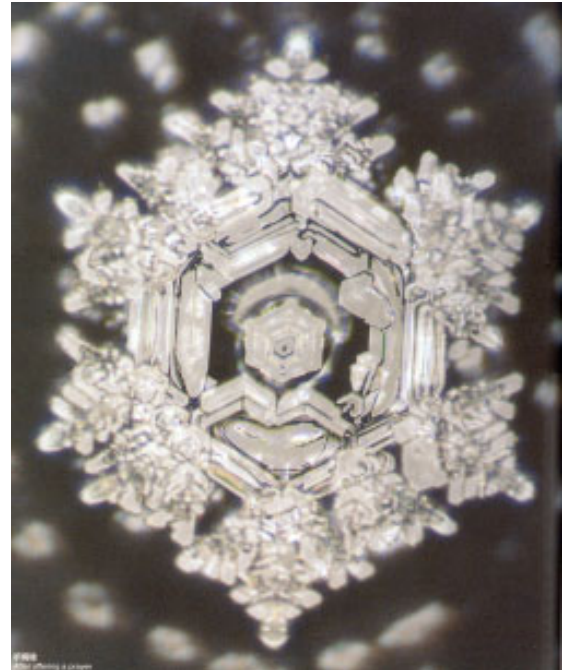


Figure 16. Water is shown in crystal form after Reverend Kato rendered prayers to the water!

Mr. Emoto's research is not only ground breaking, but presents a powerful message when you consider that an adult human being is 70% water and that modern agricultural methods and industrial methods are poisoning our water; *one can only speculate on the potential damage this is doing to our bodies, both through our food supply and by direct consumption!*

Source: The Message From The Water By Massaru Emoto, (46). Reproduced with permission from SourceBooks.

Having personally experimented with the methods developed by Bovis, I have found some interesting results. Using a single terminated crystal pendulum (Figure 17), I tested several foods ranging from packaged sports bars, cookies, pastries, raisins, fruit and conventional vitamins, to organic produce and organic whole food vitamins. Among my findings, I found that organic foods and vitamins radiated at a level close to 20,000 angstroms, tap water is dead, and bottled spring water produces approximately 2,000 angstroms of pendulum movement. However, once I added some Celtra Salt (unprocessed sea salt with large quantities of naturally-occurring trace minerals), the level of activity approached 50,000 angstroms! In fact, the life force was so strong it felt like someone was pulling on my pendulum!



Figure 17-A. Dowsing Protein Powder.

Using the pendulum method of dowsing as described by and developed by Bovis and used by Simoneton, I have tested many foods. Here I show a commonly used brand of protein powder, which is literally dead! One centimeter of movement is equivalent to 10,000 angstroms in Bovis' terminology and the human body resonates between 6,500 and 10,000, although I have found very healthy or enlightened people to resonate much higher than that.



Figure 17-B. Dowsing a variety of foods.

Using a pendulum to dowse foods, you can easily determine the life-force of any foodstuff. It is interesting to note that my findings match the findings of famous Yogi masters and other healers as suggested by their writings.

Some explanations for the large variance of food vitality assessments could be due to:

- **Tester Vitality**
It is known among dowers and healers that the relative health, vitality and spiritual development, as well as the tester's level of open-mindedness, may influence such testing procedures, just as they influence treatment procedures.
- **Organic vs. Conventional Foods**
Nowhere in the literature did it indicate the types of foods Simoneton tested. However, my assessments of non-organic foods indicate roughly the same findings as his.
- **Pendulum Quality and Tail Length**
There is no indication of what material Simoneton's pendulum was composed of, nor how long the tail of his pendulum was. Both factors could influence the findings. My tests were performed with a high-quality, single terminated crystal pendulum in a pure silver bracket. The strings, approximately 10" long, were silk – one violet and one red to assure collecting vibrations from all aspects of the color spectrum.

Much of what people are eating and most of what is being sold in gyms as “performance food” is dead or nearly so! This is a valuable lesson. If you would like to begin testing your own foods to see what you find, I suggest “The Pendulum Kit” by Sig Lonegren (45), which comes complete with a pendulum and excellent instructions on how to dowse.

Life Force and Your Aura

Famous researcher Valerie Hunt was probably the first American researcher to prove the existence of a human aura (energy field) and that chakras emanated various colors of light (43, 47, 48). The aura is an expression of life force energy in the human body and all other living things. Using Kirlian photography, researchers have been able to photograph the auric field of plants, demonstrating that even after a leaf had been severed in half, the energy imprint of an intact leaf still remained (49 p. 55). Kirlian photography, much like modern MRI, has also been successful for showing disease processes in the energy field of a human body, usually before the physical symptoms have manifested (49 p. 110). The changes seen in the aura of humans and animals are all alterations in the life force of the subjects.

Although there is not a lot of literature available on the effects of foods on our life force, in reference to disease I would like to quote McDonagh (42 p. 119-20):

It may be stated (1) that there is only one disease; (2) that disease is fundamentally the same in plants, animals and Man; (3) that there are several manifestations of disease; (4) that these manifestations of disease

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are caused through the damage suffered by the protein in the blood, in the case of animals and Man; (5) that the manifestations occur in the tissue and organs which originated from the damaged regions of the protein; and (6) that the factors responsible for the damage are (a) **climate**, (b) **faultily grown food** and (c) pathogenic activity of the developmental forms of cocco-bacillus which reside in the intestinal tract, and, (d) **the unnatural conditions under which animals are forced to live...as well as the measures adopted to make an animal yield more produce than Nature ever intended it should.**”

Noting the sections of McDanagh’s statement that I have bolded, climate, faultily grown foods and the conditions we are subjecting animals to are all related to modern farming methods! What this is saying is that, in order to stop disease in it’s tracks, we must look to the causative factors, one being today’s farming methods.

To my knowledge, Valorie Hunt is the only researcher to show video footage of the human aura and the effects that food has upon it (43). In an interesting demonstration, Dr. Hunt showed a diminished auric field of a subject eating junk food. She then had the same man sit with live fruits and whole grains for 20 minutes and meditate with the foods. Not surprisingly, there was a tremendous increase in the magnitude of the subject’s aura when he was exposed to the living foods!

Reiterating the connection between the foods we eat and our energy system, Master Choa Kok Sui (50 p. 31-2) suggests that diet is an important part of preventive healing. He states that, “Proper diet simply refers to clean nutritious food. Clean means food must be physically and etherically clean.” Etherically clean means the energy field or life force energy of the foods must be free of impurities and negative energy. He goes on to say that, “Physically, the food must be substantially free of dirt, germs, and chemical toxins.” As I’ve shown, any food that is not organically grown is full of chemical toxins! Master Kok Sui also states that fresh food contains more life force than preserved ones, a statement that echoes the findings of Bovis and Simoneton above.

The significance of the pollution being put into our waterways and our bodies as a direct result from agro-business farming methods will become progressively more prevalent as I show how these methods affect animals and humans. (After all, I’ve only talked about the soil and plants thus far!) It is important to conclude at this point that there are many reliable indicators that foods with a long shelf life, processed foods, overly cooked foods, some partially cooked foods (such as some vegetables), toxins and chemicals from processing can disrupt our life force energy, depleting us and leaving the door wide open for disease.

As stated by McDonagh, “There is only one disease; that disease is fundamentally the same in plants, animals and Man” (42 p. 119-20). This is a reason for concern when we consider that the one BILLION pounds of pesticides being sprayed on our

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food every year has doubled since 1945. Quite simply, to be free of unnecessary disease, we must grow clean organic produce, and build and maintain healthy soils, plants and animals! Only then will we approach the level of life force energy possessed by our genetic predecessors!

I have given you plenty to think about with regard to our soils and the produce we are growing. If I have not been successful at convincing you of the benefits of organic farming, produce, and more importantly, the organic way of living at this point, all I can say is, if you don't believe me or the references I have quoted, ask the animals!

Chapter 4

ORGANICS AND THE ANIMAL

Human beings, armed with approximately 10,000 taste buds, have a relatively comprehensive sense of taste (51). While one might think that we should be able to use this arsenal of taste buds to determine which foods are nutritionally superior, this is apparently not the case. Approximately 61% of the American population have now eaten themselves into some degree of obesity and nutrient starvation in part through their consumption of nutritionally inadequate foods! Although some of our animal friends have more taste buds than we do and some have less, left alone in the wild they do perfectly well at selecting a balanced whole food diet. After all, when was the last time you saw a picture of a lion that was too fat to hunt, or a beaver that was too overweight to build a dam? The only time we see fat animals is in the care of humans!

With this in mind, let's look at some animal studies that look at the relationship between an animal's food selection, health and vitality. This is valuable because animals rely on instinct and don't hire scientists to 'fix' a study for a company's gain. Incidentally, many of the studies I'll be referring to are fifty years old or more. Some might contend this makes them less reliable, though I find the contrary to be the case. Many of the researchers and scientists of yesteryear were not hired by major companies to do their dirty work for them. Rather, they were ethical scientists following their instincts and reporting the findings as they actually occurred.

Today's food manufacturers are not legally obligated to test products to see whether or not they will sustain life; only companies selling animal foods are required to follow such guidelines. The manufacturers selling human food products only conduct research on how to reduce their production costs and improve their marketing strategies (31). The result has been dwindling literary support for organic foods from the scientific community.

Whole Food or Processed Food?

The first study we'll look at was conducted in 1927 by Major General Sir Robert McCarrison M.D. (37 p. 35, 40-51). Dr. McCarrison was appointed Director of Nutrition Research in India, and decided to examine the exceptional health of the Hunza, Sikh and Pathan peoples by transferring their eating habits to 1,189 laboratory rats, and then watching them from birth to 27 months of age (equivalent to 55 years of human life). He also performed similar experiments on another groups of rats using the eating habits of Indian populations of average and/or poor health. He fed

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rats in both groups the exact diet of specific populations. An example of McCarrison's work is outlined here, comparing rats fed a diet similar to the now famous Hunza people, known for their superior health and longevity, and rats fed on a traditional English diet.

In this particular experiment, the 'Hunza' rats were fed for two years (~50 rat years) on a whole food diet consisting of:

- Freshly ground wheat flour made into cakes of unleavened bread
- Fresh milk and the products of milk (butter, curds, butter milk)
- Pulses (peas, beans, lentils)
- Root vegetables (potatoes and carrots)
- Fruit
- Meat occasionally

During a two-year period, there were no cases of illness among rats fed the Hunza diet. There were also no deaths from unnatural causes and no maternal or infantile mortality, except for an occasional accidental death. Overall, there was little disease among the rats and they all lived happily together.

In comparison, Dr. McCarrison raised rats raised on a traditional English diet consisting of:

- White bread and margarine
- Tinned meat
- Boiled vegetables
- Cheap tinned jam
- Tea
- Sugar and a little milk

The rats fed a traditional English diet did not grow well, became ill and lived unhappily together. In fact, by the 16th day of the experiment the stronger rats began to kill and eat the weaker rats and had to be separated! In addition, the English-fed group suffered diseases of the lungs, stomach, intestines and nerves.

Strikingly, these were the same types of diseases every 1 in 3 sick people suffered from in England and Wales during the time of the experiment!

The results of different feeding patterns are obvious when actually seeing the rats. For example, Figure 18 (top) shows a rat fed the "typical western diet", which is very much like the English diet outlined above. The rat fed the "Sikh" diet (similar to the Hunza diet) is obviously much healthier. In his study, McCarrison also noted that the rats fed the western diet became cannibals, eating three of the rats from their own group (15 p. 178)!

Another interesting study used rats eating an "average American diet" (52). While the details of the study were not provided in the reference, just seeing the rats tells the story - a picture is worth a thousand words (Figure 19)!

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Figure 18. McCarrison's Rats.

Rat fed the "typical western diet" (top), which is very much like the English diet outlined above, is less healthy than the rat fed the "Sikh" diet, very much the same as the Hunza diet (bottom). In the particular study in which the picture came from, McCarrison noted that the rats fed the western diet *learned the lesson of whole foods – they became cannibals, eating three of the rats from their own group* (15 p. 178)!

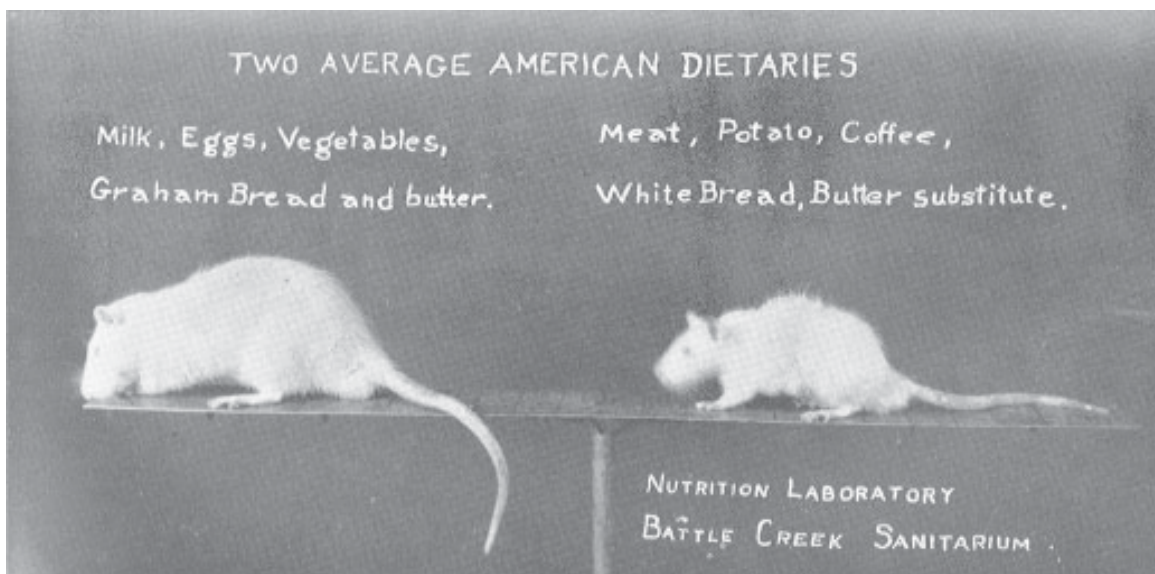


Figure 19. Rats on Two American Diets

Another interesting study on rats compared to "average American diets" (52). While the details of the study were not provided in the reference, just seeing the rats tells the story *a picture is worth a thousand words!* It is interesting to note that the reference from which the picture of the rats originated was published in 1932, yet the diet of the smaller, unhealthy looking rat could easily be said to be a diet common among Americans today!

Grain From Fertile Soil vs. Grain Purchased On The Open Market

It was once said, “If your doctor doesn’t know, ask the animals!” This is exactly what Sir Bernard Greenwell did in 1939 by comparing the effects of grain that was raised on fertile soil with grain purchased on the open market. Interesting to note is that nutrient levels in soil began to markedly deplete in 1939, so the same study performed today would likely produce eye-opening results!

Greenwell tested the different grains by feeding them to poultry, pigs, horses and cows. He found that grain from fertile soil (37 p. 136):

- Contained a sustaining power not produced by ordinary produce.
- Increased the animals’ disease resistance.
- Decreased poultry infant mortality from 40% to less than 4%.
- Eliminated certain animal ailments such as pig scour (diarrhea).
- Eliminated the birthing difficulties commonly experienced by mares and cows.

Are The Principles Of Disease Prevention in Plants and Animals the Same?

While working as the head of research at the Agricultural Research Institute in Pusa, India, Sir Albert Howard used organic farming practices to nearly eradicate disease in his crops. He wanted to test the same methods on oxen and used six pairs of oxen for his experiments (13 p. 161-2). He began by making sure all the oxen were provided with suitable housing and fresh green fodder, silage, and grain produced from fertile land. Howard stated, “I was naturally interested in watching the reaction of these well-chosen and well-fed oxen to diseases like rinderpest, septicaemia, and foot-and-mouth disease which frequently devastated the countryside.”

None of Howard’s oxen were segregated, none were inoculated and they frequently came in contact with diseased stock. He goes on to say:

“As my small farm-yard at Pusa was only separated by a low hedge from one of the large cattle-sheds on the Pusa estate, in which outbreaks of foot-and-mouth disease often occurred, I have several times seen my oxen rubbing noses with the foot-and-mouth cases. Nothing happened. The healthy well-fed animals reacted to this disease exactly as suitable varieties of crops, when properly grown, did to insect and fungous pests – no infection took place.”

It would appear from Howard’s report that he was able to successfully apply the principles of good plant husbandry and organic farming to his animals. Between 1905 and 1925, Howard repeated the same experiments at three different research stations. Howard’s cattle were so healthy they were often exhibited at agricultural shows to exemplify how local specimens should be (13). Interestingly, Howard also made comments that are critical to the current foot-and-mouth situation in England

today. Despite the fact that Howard himself is an Englishman and his works have been well known there for over 70 years, commercial farming ignored his works and his wisdom.

Regarding foot-and-mouth disease and his experiences with oxen, Howard wrote (13):

“This experience convinced me that foot-and-mouth disease is a consequence of malnutrition pure and simple and that the remedies that have been devised in countries like Great Britain to deal with the trouble, namely, the slaughter of the affected animals, is both superficial and also inadmissible. Such attempts to control an outbreak should cease. Cases of foot-and-mouth disease should be used to tune up practice and to see to it that the animals are fed on the fresh produce of fertile soil. The trouble will then pass and not spread to the surrounding areas providing the animals there are also in good fettle. Foot-and-mouth outbreaks are a sure sign of bad farming.”

Contrast the comments of Sir Albert Howard with this piece of recent information from an article titled “Factory Farming and Human Health” by Tim O’Brien (125):

“Some producers have begun research trials adding cardboard, newspaper and sawdust to cattle feeding programs to reduce costs. Other factory farms scrape up manure from chicken houses and pigpens, adding it directly to chicken feed. Cement dust may become a particularly attractive feed supplement in the future, according to the US Department of Agriculture, because it produces a 30 percent faster weight gain than cattle on regular feed. Food and Drug Administration (FDA) officials say that it’s not uncommon for some feedlot operators to mix industrial sewage and oils into feed to reduce cost and fatten animals more quickly.”

Such inhumane practices partially contribute to the current outbreak of foot-and-mouth disease in England. This disease is mainly an indication of:

- Poor farming standards, particularly in England (though the US is not much better)!
- What can, and will, continue to happen if we keep supporting their dysfunctional ways by continuing to purchase such food!
- How poor farming is cruel to animals! It is one thing to feed and raise animals well, allow them a normal life and, like a plant, harvest them to be used appropriately for human nourishment. It is another story completely to put thousands of animals in a building where they never see the light of day, live their entire life in their own excrement and fed garbage, literally! These poor animals’ lives are sustained only by outrageous amounts of growth hormones and antibiotics, which ultimately end up in our body!

Non-organically raised animals are literally eating sewage! If I were not convinced of the benefits of organic foods by now, this would be enough to convince me to make the switch!

Some Findings from the Haughley Experiment

During the last eight years of the Haughley Experiment, the longest experiment ever run on organic vs. conventional farming, extensive records were kept and recorded in “The Living Soil and The Haughley Experiment” by Lady Eve Balfour (37). I will present some of the relevant findings here.

Milk cows that were organically raised produced more milk than the cows raised using a mixed method of farming and feeding. Table 6 shows how much the cows were fed and how much milk they produced from 1962 to 1964.

Data	1962		1963		1964		Mean	
	Organic	Mixed	Organic	Mixed	Organic	Mixed	Organic	Mixed
Total Cow Days	4,790	5,213	5,237	5,636	4,860	5,479	5,274	5,620
Total Concentrates Fed	8,521	13,158	11,506	16,183	10,414	14,384	13,628	18,653
Total Concentrates per cow day	28.5	40.4	35.1	42.3	32.0	40.8	41.4	53.1
Milking Cow-Days	3,940	4,067	3,762	3,877	3,677	4,022	3,689	4,020
Concentrates fed to milkers	6,743	10,144	8,068	12,383	7,646	11,034	7,855	14,005
Concentrates per milker-cow day (oz)	27.4	39.8	34.6	51.1	33.7	43.9	34.1	55.7
Total Milk (lb)	73,899	69,514	85,205	78,288	78,236	73,784	80,966	76,452
Milk per milker cow-day	18.5	17.1	22.6	20.2	21.3	18.4	21.1	19.0
Milk per acre (lb)	939.8	916.2	1,083.7	1,031.2	995	972.2	1,029.7	1,007.6
Milk per lb. Concentrates fed to milkers	11.0	6.9	10.5	6.3	10.3	6.7	10.3	5.5
Milk per lb. Total concentrates fed	8.7	5.3	7.4	4.8	7.6	5.1	5.9	4.1

Table 6. Organic Feed and Milk Production

Records of feed type relative to milk production for the years of 1962-1964 clearly demonstrates that cows fed organic food not only ate less, but produced more milk per cow!

At one point during the Haughley Experiment, a strip across the center of the field was deliberately omitted when the spring chemical compound fertilizer was applied. When the cows were first let out in this field, they immediately found this strip and grazed it bare before feeding elsewhere (37 p. 233-4). Additionally, cows placed in commercially fertilized pastures adjoining organically raised pastures *always* ate along the fence line of the organic pastures and as far into the organic pasture as they could before attempting to eat commercially grown crops! This gives some indication of the instinct that cows have for their food. Most humans see cows as slow and stupid, but when given the choice cows will always choose the better food. Knowing that most humans have the choice and are still eating inferior food, who’s more stupid?



Figure 20.

Cows, goats and virtually any grazing or foraging animal will go to great lengths to get to the most nutritious foods.

Here is C.H.E.K Institute artist Charlie Aligaen’s rendition of a cow eating under the fence to get to the more nutritious grass that has not been spoiled by chemical fertilizers. This rendition is based on many examples shown in Dr. William Albrecht’s video “The Other Side Of The Fence” (124).

In an effort to explain why milking cows from the organic herd were able to produce milk while consuming noticeably less food, analytical work was performed on the pastures. It was found that the organic grasslands contained significantly more dry matter than mixed grasslands, with the variance being as much as 100% different (Table 7). Balfour noted that this finding was not consistent with all the crops tested. For example, the findings were not conclusive for grain, pulse or hay. This is interesting when considering that Sykes found higher protein content in the hay on his farm (10 p.106-10, p.235).

Section	Dry Matter %
1 st Year 'M' ley, fertilizer treated area	11.8
1 st year 'M' ley, no fertilizer	13.0
1 st year 'O' ley	18.2

Table 7. Dry Matter Content Of Grazing Leys As Sampled May 2,1963

M = Mixed Fertilization, O = Organic

Here you can clearly see that the dry matter in the organic ley is superior, accounting for the fact that the organic cows ate less while producing more milk. When samples were taken one week later, the 'M' ley produced 13% dry matter and the 'O' ley 26%! (37 p. 234)

When looking at the many studies comparing organic crops to conventionally grown ones, there are a tremendous number of variables that can create discrepancies between studies. One of the major factors is the skill of the farmer. Just as some craftsmen are better at building houses than they are at painting, some farmers are better at growing a specific type of produce than they are at growing another. Realizing this, it's easy to have an inconclusive study comparing organic produce to conventional produce, where the skill of the farmer has a massive role in the quality of the crop. This was demonstrated in a comprehensive study performed in Denmark, where the scientists could easily identify a farmer by the element profiles from their produce (53). This is why it is ultimately the health of the individual or animal eating the crops that is the only truly reliable means of testing, particularly since most people purchase organic produce from multiple sources. This seems to greatly reduce the chance of suffering from poor husbandry from any one particular location.

Poultry

The Haughley experiment's findings for poultry were similar to those found with regard to cow's milk; the organically raised chickens produced more eggs relative to food consumed. Another notable poultry finding was that adult mortality was significantly lower in the organic flock. The most common ailments of the birds living in the mixed farming conditions were respiratory troubles and heart failure, despite the fact that they were living 'free range'. (37 p. 236-7). Duly noted is that the organic flock produced much tougher and disease resistant offspring.

With regard to an animal's ability to differentiate foods based on quality, Weston A. Price's writes:

“Not only do dumb beasts select herbage according as they are more carbonaceous or proteinaceous, but they select from the same kind of grain the offerings according to the different fertilizers with which the soil was treated.”

“Hogs select from different corn grains from separate feeder compartments with disregard for different hybrids but with particular and consistent choice of soil treatments. Rats have indicated discrimination by cutting into the bags of corn that were chosen by the hogs and left uncut bags not taken by the hogs (40 p. 452).”

Smart Rabbits

In the first edition of “The Living Soil,” E.B. Balfour recalls an account where produce was planted next to a golf course. The cabbages, sprouts and other vegetables, treated with artificial fertilizer were described as “luxuriant”. To increase the family meat ration (just after WW II), part of the crop was fed to rabbits, “who ate without relish, became apathetic and smelled unpleasant. Later when grass mowings were substituted, the rabbits ate voraciously, became vigorous and sweet-smelling.” (12)

Balfour then relates a story from “Spector”, a letter from the Food Education Society (October 17, 1941):

“A correspondent writes: ‘Cabbages and sprouts grown too fast with nitrate and phosphate [chemical fertilizers] are a curious ‘wrong’ color. If over 50% of the greenstuff is given to rabbits is of this sort, the rabbits die. Permanent pasture dressed with phosphate produces a luxuriant field. If the phosphate goes beyond a certain point the field takes on an unnatural green, and is deserted by wild rabbits.’”

Salesmen use this fact as a recommendation. One told me: “use my soluble phosphate fertilizer and keep the rabbits away.” Another said: “Use enough nitro-chalk and you will get big greens that rabbits will scarcely touch; if they do, they die.”

Balfour goes on to say:

“Animal instincts may be sound guides to food values, which are actually soil values, because food is nothing more than the “conveyancing agent” or “agent of transfer” of the soil’s qualities into the bodies of man and beast; land in good heart supporting bodily health, vigor and stamina; poor unbalanced soils producing ill health and debility.”

It never ceases to amaze me that, despite volumes of written materials documenting the negative effects of chemical farming on our bodies and our animals, these practices are continued today and are progressively getting worse!

Pottenger’s Cats

Francis Marion Pottenger Jr., MD., performed extensive feeding experiments on cats (55) lasting over 10 years and involving 900 animals. The main purpose of his study was to compare the effects of cooked food versus raw food. One group of cats was fed a diet consisting of raw milk and raw meat, while another group ate pasteurized milk and cooked meat.

An article by Dr. W. Albrecht reports Pottenger’s findings (55):

The animals who received an all-raw diet, both milk and meat, remained healthy and bred normal healthy litters from generation to generation. The animals who received a diet of cooked meat and/or pasteurized milk became progressively degenerate through succeeding generations. The animals fed cooked meat and/or pasteurized milk had a 25% abortion rate in the first generation of off-spring, increasing to 70% in the second generation. By the third generation, kittens had become so degenerate they failed to survive for six months! In later experiments, cats whose metabolism had become deranged by the cooked food were returned to a raw food diet. Complete regeneration, where it was not too late to achieve, took four generations!

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In another of Pottenger's experiments, all feed components for the cats were constant except for the milk. Four kinds of milk were used in this study, (a) sweetened condensed, (b) evaporated, (c) pasteurized, and (d) raw. At the conclusion of the study, cat's that had ingested the raw milk were determined to be the healthiest and the rest of the cats' health declined as the quality of their milk declined. The sweetened condensed milk created the most unhealthy cats.

Interesting to note is that at the end of the experiment, weeds had grown in the quartz sand that had acted as the floor for the cat's pens. The vigor of the weed growth followed the same pattern as the health of the cats. According to Albrecht:

“All the evaporated and heated milks coming by way of the cat dung apparently did not put into the sand enough fertility even to invite weed growth. Raw milk had put so much back, even after feeding the cats better, that the weed growth filled the pens completely.”

Albrecht goes on to describe a how they used the weeds as a further experiment:

“The weeds were dug in and Michigan White dwarf beans planted in all four pens. They, too, followed the same pattern as the weeds; but in this case, even growth habit was changed, for in the raw milk pen, the beans ceased to be dwarf and climbed the wire 6 ft. high. These beans were left to ripen and the seed harvested. All the seed except that from the raw milk pen smelt of cat excreta. This odor is caused by the common fecal excretions indole and scatole, which are ring compounds (any compound in which the constituent atoms, or any part of them, form a ring) unbroken by digestion. Indolacetic acid is the plant hormone giving pronounced growth of roots and shoots. Indole becomes this hormone by addition to the indole ring. With little further change by addition, it becomes tryptophane, the frequently deficient, but required, amino acid. So, having indole in the cat dung, the suggestion of a hormone to change dwarf beans into pole beans, the presence of indole odour in all the ripe seed except the 'pole' beans in the raw milk pen, Dr. Albrecht's suggested interpretation is that the beans took up the indole in unbroken form, but in the case of those growing on the dung of the raw-milk-fed cats it was converted into indolacetic acid, and possibly tryptophane, as part of the bean protein.”

Dr. Albrecht suggests that this may be the normal route of growth for organic compounds in the cycle from soil, to plant, to animal, and back to the soil. In this particular case, two animals were involved, the cow and the cat, and the effect of merely sterilizing the milk was in some way upsetting to the normal flow of these organic compounds in the cycle.

In this same article, Dr. Albrecht goes on to tell of another experiment where pigs were given three different grain options to eat at the same time. The pigs had the

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ability to determine which of the grain options available to them came from the most fertile soils.

It is interesting to note that, according to farmers and scientists, whenever there was less nutrient density in a particular feed, the animals always ate significantly more than they did when they had nutrient-dense food. Farming experts such as Balfour, McCarrison, Albrecht, Sykes and Howard, commonly noticed that the energy, behavior and body fat of animals changed for the worse as the quality of their food decreased.

This brings me to an interesting correlation between the findings of these great farmers and the comments of Paul A. Stitt in his book “Beating the Food Giants.” In this book he clearly outlines the science behind the “can’t eat one syndrome” (30) and according to him, scientists have found 51 different food elements that are necessary in any one food to satisfy the appetite center of our brains. Knowing this, scientists employed by major food companies not only selectively remove one or many of these items, but they purposefully add things like salt and sugar, which are known to stimulate the appetite center of our brains. As an example, he refers to the extensive research done on Oreo Cookies, responsible for producing the “can’t eat just one” response they are famous for. Lay’s Potato Chips wasn’t even bashful about this practice and used “Betcha, Can’t Eat Just One” as their slogan!

Now that we’ve had a look at animals and organics, it’s time to have a look at the effects organic food and farming has on another type of animal – us.

Chapter 5

MAN AND ORGANIC FOODS

Having looked at three quarters of the Wheel of Life (Figure 2), we are now ready to consider how organic farming affects humans. So far we have looked at the importance of maintaining a living soil to produce healthy, nutritious, disease-resistant plants and we have looked at the relationship between organically raised plants and animals. It is now time to explore the relationships between modern foods, man and our ecosystem, and finally, what organic foods have to offer man and the future of our eco-system.

Back in 1940, Sir Albert Howard said (13):

“The birthright of all living things is health. This law is true for soil, plant, animal and man – the health of these four is one connected chain. Any weakness or defect in the health of any earlier link in the chain is carried on to the next and succeeding links until it reaches man. The widespread vegetable and animal pests and diseases, which are such a bane to modern agriculture, are evidence of a great failure of health in the second (plant) and third (animal) links of the chain. The impaired health of human populations (the fourth link) in the modern civilized countries is a consequence of this failure in the second and third links. This general failure in the last three links is to be attributed to failure in the first link: the under-nourishment of the soil is at the root of all. The failure to maintain a healthy agriculture has largely canceled out all the advantages we have gained from our improvements in hygiene, in housing and in our medical discoveries.”

I am continually amazed at the experience, wisdom and foresight Sir Albert Howard demonstrated, even 60 years ago. Many of the references I am using were published just after World War II, and although this is not intended to be a study in epidemiology, it seems evident that back in the early 1900's, society was suffering many of the same problems we are experiencing today. Though the experts of that era saw these issues as a problem, by today's standards they are relatively small. The writings of Sir Albert Howard, Lady Eve Balfour and many others gave us complete directions for how to regain the health of our soils, plants, animals and our bodies. Yet so few listened and where has that gotten us?

Where Are We Now?

Yesteryear's health and farming experts did not have the financial capacity to mass market their information, especially compared to the companies selling chemicals and junk foods. Big time players, ranging from those selling white flour and white

sugar to fertilizers and pesticides were not only able to spend huge amounts on advertising, many historical records show they were able to get both the government and the medical establishment in bed with them – a big rich and powerful family. Though it's hard to believe someone could be so ignorant, this 'super-family' was not only promoting their foods, but they were also *eating* their garbage foods, oblivious of the fact that their children would eventually inherit their damaged genetics (55) and eco-system.

Unfortunately this situation has not gotten better, it's gotten worse...much worse! For example, a survey performed in Australia, where the number of fast food restaurants roughly tripled during the 1990's, found that half of the nations nine- and ten-year-olds thought that Ronald McDonald knew what kids should eat (57).

China is not much better. Coca-Cola, which is served at every McDonald's restaurant, is now the favorite drink among Chinese children. Worse, the idea that "you are what you eat" has been enthusiastically promoted for years by Den Fujita, the eccentric billionaire who brought McDonald's to Japan three decades ago. "If we eat McDonald's hamburgers and potatoes for a thousand years," Fujita once promised his countrymen, "we will become taller, our skin will become white, and our hair will be blonde" (57). Simply eating at McDonald's in Beijing seems to elevate a person's social status.

Coca-Cola and all its marketing muscle, having basically tapped out the soft drink market, decided to delve into the milk market. Believe it or not, the name of their new milk drinks project is "Project Mother"(58). This project is reported to target the potentially lucrative new field of children's milk drinks. It appears that Coke is trying to make it hip for those under the age of 12 to drink milk-based drinks in public.

If Project Mother works as well as Coca-Cola wants it to, it will end up spreading intensive farming techniques all over the world to compensate the massive increase in milk consumption and new markets are created. Animals, the environment, small farmers and yes, even mothers around the world, would all suffer from Coca-Cola's grandiose ambitions (38). One need only imagine how much the cows will suffer in this scheme – more drugs, more antibiotics – more saving money on feed by feeding them sawdust, cardboard, animal remains, and cement dust.

When I was a kid, Coke was a reward I'd get for a job well done splitting firewood or cleaning the barn. However, I would only experience this type of reward once a week, at best. Such was the norm with my generation, but it doesn't seem to be the case any more. To illustrate, in the past year I have been consulted on two separate occasions by someone who was feeding their baby Coke in their bottle! When asked why they were doing this, both times the mothers stated, "It's the only thing that shuts him up!" And some of us still wonder why children are getting fatter at an exponential rate!

Under the Veil of Deception

Another example of money being used as muscle was demonstrated by Gerber Baby Foods who used the World Trade Organization to suppress laws promoting breast-feeding in Guatemala (59). In 1983, the government of Guatemala passed a law and regulations in an attempt to inspire new mothers to breast-feed their infants and understand the harm that could be done to their baby by using breast-milk substitutes. Gerber objected to Guatemala's law. It refused to remove its trademark picture of a smiling chubby baby from its product labels. It also refused to add a phrase to the labels saying that breast milk is superior.

In November 1993, Gerber lost its appeal but opened up a new line of attack on Guatemala, stating that the law was an "expropriation of Gerber's trademark". In 1995, when the World Trade Organization began, Gerber dropped its claim regarding expropriation and began to challenge Guatemala before the WTO tribunal. Guatemala realized it was in battle with an immense power and the government changed its law to concede to Gerber's marketing practices (56).

What have we become when we have Coca-Cola in baby bottles, children thinking that Ronald McDonald knows what children should eat, and companies like Gerber changing laws of countries that encourage mothers to breast-feed and care for their children, just to sell more of their product! The worst part is that most of us just sit back and watch it all happen. And when we purchase any of these company's poisons, we're financing our own demise!

Are They Lying Or Just Ignorant?

Sadly, it is easy to find credentialed individuals telling us lies regarding our health. As an example, Stephen Barrett, M.D., a board member of the National Council Against Health Fraud and board chairman of Quackwatch, Inc. tells us (56):

"Organic foods are certainly not more nutritious. The nutrient content of plants is determined primarily by heredity. Mineral content may be affected by the mineral content of the soil, but this has no significance in the overall diet. If essential nutrients are missing from the soil, the plant will not grow. If plants grow, that means the essential nutrients are present. Experiments conducted for many years have found no difference in the nutrient content of organically grown crops and those grown under standard agricultural conditions."

Included in the same article by Barrett, was a comment by Manfred Kroger, Ph.D., a Quackwatch consultant and Professor of Food Science at The Pennsylvania State University:

"Scientific agriculture has provided Americans with the safest and most abundant food supply in the world. Agricultural chemicals are needed to maintain this supply. The risk from pesticide residue, if any, is minuscule, is not worth worrying about, and does not warrant paying higher prices."

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First of all, if these statements are true, why are there volumes of documented information, some dating back 60 years or more, proving otherwise? Surely it can't *all* be wrong. Secondly, if our society's current state of health is any indication of the validity of such "expert" statements, it's obvious that these two experts are the real quacks! To counteract Dr. Barrett's claims, here is a statement from the "Soil and Field Research Organization" (60) which states:

"It is not sufficiently appreciated that vegetables, like other plants, can grow to maturity and look as green and healthy whether they have an optimal mineral content or not and, as is the case with farm animals, evidence of deficiency can be detected only by recognition of the signs and symptoms which develop in the consumer."

According to this, just as people can be deficient in a vitamin or mineral for years and show no overt signs of deficiency, so too can a plant be deficient and still appear to grow normally. On average, American medical doctors receive approximately four hours of nutritional training in medical school. This proves the statement made by the New Zealand soil scientists to be far more reliable than the experts at Quackwatch! Though I have no intention of attacking our medical establishment as a whole, I think it's wrong for people in such a position to make irresponsible and uninformed statements regarding our health!

In the book "The Rape of Our Heritage" (61), Brown Trotter tells the story of how, after suffering from a life-threatening heart condition, he had a successful surgery but made little progress after the surgery and became addicted to medications. After battling the effects of a poor recovery and subsequent addiction, he came to the realization that he was suffering from the same mineral deficiencies that his sheep were suffering from. After all, he was eating produce grown from the same mineral deficient soil that his sheep grazed on.

So Trotter began taking the exact same supplements and dosing regimen that had been working with his sheep. Within only a few months, he stopped taking all the medications he had been given by his cardiologist. When he returned to the doctor for his regularly scheduled check-up, the conversation went as follows:

Dr. Hull (cardiologist): "What the devil have you been up to?"

Trotter: "Why?"

Dr. Hull: "Well, you came to us late October 1972 with a badly ruptured heart, very much enlarged and after investigation we sent you to Auckland to get a new valve-which you had to have to survive. There is your X-ray. In September 1973, you report back and we are very pleased with you. We have held this situation, and this is all the Medical Association hopes to do. Here is the X-ray. Now you come to us on April 5th 1975, and you give us a perfect cardiograph and blowed if your

heart hasn't returned to normal. It has never been known in medical history. Now what have you been doing?"

Trotter: "Well, if you must know, I have just been taking what I would give my sheep if they were crook," and explained the minerals.

Dr. Hull: "Well it all sounds like baloney to me; but I concede that is has worked in your case."

Once again, we have documented evidence of the inseparable relationship between the soil, plants, animals, and man in the Wheel of Life!

Regarding Quackwatch consultant Dr. Manfred Kroger's statement that chemicals are both necessary for our food supply and that they are safe for our food supply, I will quote from a "National Academy of Sciences (NAS) report titled "Pesticides in the Diets of Infants and Children" (62, 63):

The study concludes: "The data strongly suggest that exposure to neurotoxic compounds at levels believed to be safe for adults could result in permanent loss of brain function if it occurred during the prenatal and early childhood period of brain development. This information is of particular relevance to dietary exposure to pesticides, since policies that established safe levels of exposures to neurotoxic pesticides for adults could not be assumed to adequately protect a child less than four years of age."

Many people had better hope that Professor Kroger is right and pesticides "aren't worth worrying about" because when one looks at a typical school lunch of a New Zealand student (62), they are eating more chemicals than they or their parents realize:

Ingredients:

Sausage: DDE, Chlorpyrifos-methyl, fenitrothion, Pirimiphos-methyl

Tomato: Alpha-endosulfan, beta-endosulfan, endosulfan-sulphate, chlorothalonil, dithiocarbamates, iprodione, procymidone, vinclozolin.

Butter: DDE (Authors Note: DDE is a derivative of DDT)

White bread roll: chlorpyrifos-methyl, dichlorvos, fenitrothion, malathion, pirimiphos-methyl.

Apple: chlorpyrifos, captan, iprodione, vinclozolin.

By the way, keep in mind that New Zealand as a whole has much more strict food and farming standards than the US! For the known effects of these pesticides on mammals, see Table 8, page 72.

Pesticides: A Toxic Cocktail

There are a number of pesticide residues making it into the school lunchroom and to your dinner table. To give you an example of how prevalent pesticide residues in our food are, consider these recent statistics:

- In the United States, about one quarter of the population reports some adverse reaction to food. At least 8 per cent of children have physically identifiable allergic reactions to food (63).
- A panel convened by the U.S. National Academy of Sciences in 1993 reported that federal allowances for pesticide residues were too lenient, and that infants and children could be harmed by current pesticide residue levels that the government considers “legal.” (65).
- Often, residue levels exceed even the “legal” limits. A highly-publicized January 1998 study by the Washington-based Environmental Working Group (EWG) found that millions of American children are at risk every year from ingesting dangerous levels of at least 13 different neurotoxic organophosphate (OP) pesticide residues in their apples, apple sauce, apple juice, peaches, popcorn, corn chips, and other foods (65).
- According to the EWG report: One out of every four times a child age five or under eats a peach, he or she is exposed to an unsafe level of OP insecticides. Thirteen percent of apples, 7.5% of pears, and 5% of grapes in the U.S. food supply expose the average young child eating these fruits to unsafe levels. Many of these exposures exceed the federal safety standard by a factor that the EWG’s figures came from more than 110,000 U.S. government-tested food samples and government data (65).
- The Centers for Disease Control admit that up to 81 million Americans suffer from food poisoning every year - an astounding testament to filthy and contaminated meat, poultry, fish, dairy products, fruit and vegetables, and fast food.
 - o In 1994, the CDC’s *Dr Morris Potter* said in the Harvard Health Letter that 81 million annual victims may be a low estimate. He said the real figure could be more like 266 million in the U.S. alone (65).
- Food poisoning affects approximately 1 in 17 people in the UK, costing the tax payer as much as 3 billion each year (66).
- In another study of eight different non-organic baby foods produced by Gerber, Heinz, and Beech-Nut, the EWG found residues of 16 different pesticides - including probable human carcinogens, neurotoxins, endocrine disrupters, and oral toxicity No. 1 chemicals, the most toxic designation. Though industry groups sprang to the attack, accusing the EWG of “drumming up fears and new scares”, the uncomfortable fact remains.
- Some foods are treated several times and often with different pesticides. For example, dessert apples are treated as many as 16 times with pesticides containing 36 different active ingredients. A single high dose

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of residue in a piece of fruit or vegetable could cause short-term effects such as a stomach upset but the effects of exposure to combinations of pesticides with similar actions and similar toxic effects over the course of a lifetime are unknown. An expert committee is looking into this issue, but won't report its findings until 2002 (67).

- Some of the fruit and vegetables with persistent pesticide problems are (67):
 - o Lettuce: Tests in the year 2000 found 17% of lettuces had residues above the Maximum Residue Level (MRL) – in one case four times above the legal limit. Earlier surveys found similar problems. One UK sample contained eight different residues including dimethoate, an organophosphate which is not approved for use on lettuce.
 - o Grapes: In 1999, 67% of the samples tested contained residues, 29 per cent multiple residues and 7% exceeded the MRL.
 - o Strawberries: 1999 tests found 80% of the sample contained residues and 42% multiple residues – these are similar to previous results.
- In 1990, the World Health Organization estimated that there were a minimum of 3 million acute, severe cases of pesticide poisoning – not including chronic cases – and 20,000 unintentional deaths each year, mostly in developing countries (68). Americans put an estimated 62.7 million pounds of pesticides and 278.5 million pounds of antimicrobials (disinfectants) into their homes each year (68).
- Mothers who lived near crops where certain pesticides were sprayed faced a 40% to 120% increase in the risk of miscarriage due to birth defects. Dr. Erin Bell, stated “the largest risks for fetal death due to birth defects were from pesticide exposure during the third week of pregnancy” (69).

It is important to note that there is no testing for “pesticide combinations” and tests are only concerned with parts per million (ppm), yet there is emerging research showing that part per trillion (ppt) concentrations may be more of a concern than the ppm findings! There are a number of experts now expressing concern that pesticides not only change chemical composition when combined with one another, but that they significantly increase their strength when combined and when exposed to heat. This is obviously an issue given that we heat up food when we cook it and pesticides are combined in our stomach as we eat them! As you can see from Table 8, there are a number of serious problems associated with pesticide exposures, which interfere with the human endocrine system (63). It's no wonder people are seeking out doctors for all sorts of seemingly unrelated ailments with strange and unusual symptoms.

If Professor Manfred Kroger is at all concerned with his health, or the health of his family, perhaps he should spend more time in the library researching his claims before he makes them!

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Captan	A fungicide which can cause cancer, genetic damage, damage to the foetus and immune system.
Chlorothalonil	A fungicide which can cause cancer, hyperexcitability, skin, eye and kidney damage.
Chlorpyrifos, Chlorpyrifos-methyl	Organophosphates which are cumulative and can cause damage to the fetus, the developing nervous system and brain, impaired immune response, birth defects and other reproductive abnormalities typical of estrogenic compounds. In bulls: sterility and impotence.
DDE	A very persistent metabolite or breakdown product of DDT, an organochlorine. It accumulates in the body, is an endocrine disrupter and can cause abnormal sexual development, allergies and impaired reproduction as well as cancer.
Dichlorvos	An organophosphate which can cause cancer (leukaemia and stomach cancers specifically), gene damage, immune-system damage, birth defects, damage to foetus, aplastic anaemia, bone marrow, sperm and other reproductive abnormalities, kills human white blood cells and inhibits steroid synthesis. Likely to be an endocrine disrupter.
Dithiocarbamates or EBDCs	Fungicides including mancozed, metiram, thiram, zineb which produce a metabolite called ethylene thiourea (ETU) which increases on exposure to heat. This means if you cook something which contains these fungicides, the concentration of ETU increases. An endocrine-disrupter, the metabolite can cause abnormal sexual development and impaired reproduction as well as cancer, gene damage, birth defects, goitre, increased fluid in the skull and allergies.
Endosulfan	An organochlorine “strongly suspected to be contaminated with” dioxins (EPA 1994). It is estrogenic, an endocrine-disrupter and can cause abnormal sexual development and impaired reproduction. It can also cause cancer, gene damage, eye and kidney damage, suppression of immune response and red blood cell damage.
Fenitrothion	An organophosphate which can cause gene and immune-system damage, behavioural deficits in newborn, is a suspect viral enhancer and implicated in Reye’s syndrome.
Iprodione	A fungicide which can cause cancer. Similar to procymidone and vinclozolin.
Malathion	An organophosphate which can cause gene and immune-system damage, birth defects, delayed nervous-system damage, allergic reactions, behavioural effects, ulcers, gastrointestinal inflammation, damage to eyesight, abnormal brain waves.
Permethrin	A synthetic pyrethroid which is an endocrine disrupter and can cause abnormal sexual development and impaired reproduction as well as cancer, immune-system, central-nervous-system and blood damage.
Pirimiphos methyl	An organophosphate which can cause gene damage.
Procymidone	A fungicide which can cause cancer. Structurally related to iprodione and vinclozolin. Strong evidence that it and the breakdown products of vinclozolin are anti-androgens (disrupt normal action of androgens, the predominant sexual hormones of males).
Vinclozolin	A fungicide which can cause cancer, genetic damage and birth defects and disrupt the endocrine system.

Table 8.

Some known long-term and chronic effects on mammals of the pesticides mentioned on Page 69.
(Source: 63)

Even The Media Can't Be Trusted

If listening to misinformed professors and doctors weren't bad enough, recent investigations show that major TV media is not to be trusted regarding matters of our food. In both February and July of 2000, reporter John Stossel of ABC's '20/20' aired a report questioning the relative purity of organic foods because of their lack of pesticides (70). Stossel reported that tests conducted for ABC news "surprisingly found no pesticide residue on conventional samples or the organic." It turns out his reporting was wrong. The Washington-based Environmental Working Group, which successfully contested the existence of ABC's tests, is calling for Stossel to be fired. ABC says it is investigating why the mistake was repeated.

Aside from the volumes of literature stating the superiority of organic food, possibly the most compelling evidence is that of your own body. Try eating organic food for a month, or even better, a year, and decide if organic food is the better choice for you and your family.

Chapter 6

**WHERE WE CAME FROM,
WHERE WE ARE,
AND WHERE WE MUST GO...
TO SURVIVE!**

Where We Came From

As I have shown from the beginning, we came from a Closed Organic Cycle for over 99% of our evolution (71), and have only been exposed to non-organic foods and farming practices for roughly 10% of the time we have practiced farming. Before I provide more information about the damage done to us as a species and the advent of chemical fertilizers, I would like to give a brief account of the natural capacity we possess to be healthy human beings.

There is probably no single book that provides a more thorough investigation of diet and its effects on man than “Nutrition and Physical Degeneration” by Weston A. Price (40). Two of the many primitive groups of people Price analyzed were the Indians of British Columbia and the Yukon Territory. Price chose this group of North American Indians because they represented one of the few groups that had not yet been touched by white man’s foods, or his ways.

The Indians of this region had remained nomadic, following moose and caribou herds in the search of food. In this region of British Columbia and the Yukon Territory, winters reached 70 degrees below zero, which eliminates the possibility of growing seed cereals, fruits or vegetables, or maintaining dairy animals. The diet of these Indians was limited to the wild animals of the chase. Among his observations, Price noted that these Indians had superb physiques and they were relatively free of disease.

In Alaska, Price interviewed a man named Dr. Romig. As reported by Price, here is what Dr. Roming said:

“In his thirty-six years of contact with these people he had never seen a case of malignant disease among the truly primitive Eskimos and Indians, although it frequently occurs when they become modernized. He found, similarly, that the acute surgical problems requiring operation

on internal organs, such as the gall bladder, kidney, stomach and appendix, do not tend to occur among the primitives but are very common problems among the modernized Eskimos and Indians. Growing out of his experience in which he had seen large numbers of the modernized Eskimos and Indians attacked with tuberculosis, which tended to be progressive and ultimately fatal as long as the patients stayed under modernized living conditions, he now sends them back when possible to primitive conditions and to a primitive diet, under which the death rate is very much lower than under modernized conditions. Indeed, he reported that a great majority of the afflicted recover under the primitive type of living and nutrition.” (40 p. 91, 71)

Robust health and an excellent physique were not only traits of the primitive Indians in the British Columbia region. Early explorers consistently described the Native Americans as tall and well formed. Regarding the Indians of Texas, the explorer Cabeza de Vaca⁷ wrote, “The men [Indians] could run after a deer for an entire day without resting and without apparent fatigue. . . one man near seven feet in stature. . . runs down a buffalo on foot and slays it with his knife or lance, as he runs by its side.” According to De Vaca, the Indians were difficult to kill. Reporting on an Indian traversed by an arrow, de Vaca states “...he does not die but recovers from his wound.” The Karakawas, a tribe that lived near the Gulf Coast, were tall, well-built and muscular. “The men went stark naked, the lower lip and nipple pierced, covered in alligator grease [to ward off mosquitos], happy and generous, with amazing physical prowess. . . they go naked in the most burning sun, in winter they go out in early dawn to take a bath, breaking the ice with their body” (72).

A dentist by trade, Price did what he knew best and performed comprehensive dental examinations on all the native people he studied around the world. Whenever possible, he compared tribes that had been infected by white man’s food with tribes who ate their traditional native diet. When he examined the teeth of the Indians of British Columbia, he found that of the 2,464 teeth inspected, only 4 teeth had ever been attacked by dental caries. In other words, only 0.16% of the teeth had a cavity! When he came back to Telegraph Creek, the point at which the Indians came into contact with white man’s food, he found the incidence of dental caries increased to 25.5%. And when he came down the Stikine River to the Alaskan frontier towns, the incidents of dental carries had increased to 40%!

To show the excellent facial structure, jaw and teeth development of the Indians that had not been influenced by white man’s food, Price took a number of photographs of the tribes he investigated (Figure 21 From Price, p. 79). In Figure 22, (Price p. 80) Price shows us the teeth of British Columbia Indians that had been exposed to white man’s food. In just one generation after adopting what Price called the ‘foods of commerce’, you can see how the off-spring had already developed significant craniofacial aberrations, such as narrowed nasal passages, deformed dental arches and crowding of the teeth (Figure 23 Price p. 81).



Figure 21. Facial Structure with Native Diet

To show the excellent facial structure, jaw and teeth development of the Indians that had not been influenced by white man's *white food*, Price took many pictures (From 40, p. 79).

Figure 22. Facial Structure with Western Diet

Price shows us the teeth of Indians in British Columbia that had been exposed to "white man's" food (From 40, p. 80) .



Figure 23. Facial Structure of Second Generation Exposed to a Western Diet

In just one generation after adopting the foods of commerce, Dr. Price showed how their off-spring had already developed significant cranio-facial aberrations, such as narrowed nasal passages and deformed dental arches, complete with crowding of the teeth (From 40, p. 81).

Price's observations are by no means one of a kind. Famous explorer Vilhjalmur Stefansson, who spent many years in isolation with Eskimos and the Indians of Alaska noted, "When the natives ate European food, it became evident promptly that no racial immunity was involved; for Eskimos who went along as guides on polar expeditions, or took employment with miners in Alaska, came down with scurvy like the whites, Negroes and South Sea Islanders who came up with the rest of the parties." Interestingly, Stefansson also noted, "At any rate it seems clear that scurvy was not as common among the Indians in any part of North America as it was among whites in most parts of Europe during the seventeenth and eighteenth centuries (73)."

While visiting the Indians of British Columbia, Dr. Price asked them how they avoided scurvy on what was, for all practical purposes, an all meat diet. The Indians explained that they ate the adrenal glands of the moose. They would divide the adrenal gland into as many sections as there were people in that hunter's family and eat it. It was later identified that the adrenal glands are the richest source of vitamin C in all animal or plant tissues (40 p. 71).

In the detailed descriptions of his expeditions, Stefansson wrote about the importance and value of an Indian food called "pemmican", which consists of dried meat, fat and sometimes berries (73 p. 199, 71). Pemmican was loved by white mountain men (mostly trappers), who were strictly carnivores, with the exception of a couple weeks of the year. Stefansson notes, "As soon as soldiers and emigrants came into the West, they highlighted the normal good health of the trappers by developing dozens of ailments – ailments that the trappers never suffer from."

I highlight the observations of Price and Stefansson here to make the following points:

- a) Except for Indians that ate white man's food, all the foods eaten by the Native Indians was naturally organic. All animals, excluding carnivores, consume plant life growing within the confines of a closed organic cycle.
- b) There are numerous diet and nutrition 'experts' who seem to be hell bent on emphasizing how harmful high-protein and/or high meat diets are. If these people were to qualify their concerns based on the status of our meat sources today, I believe their concerns may be relevant. However, this is usually not their reason. My question to them is, how can the American Dietetic Association (among others) be telling us to eat multiple servings of grains, cereals, breads, and vegetables when the works of such pioneers like Weston A. Price and Stefansson show that our ancestry thrived on a much different diet?
- c) Vegetarianism seems to be as popular as ever and its proponents don't seem to want to budge from their arguments. However, Dr. Price, who literally covered the globe studying primitive people, never located *even one* tribe or groups that existed on a diet completely free of meat!
- d) We need to return to a way of eating that more closely approximates the diet our genetics are most likely designed for. We must therefore

take immediate action to restore the cleanliness and quality that can only be provided by the closed organic cycle!

It is well documented that our forbearers lived on a predominantly meat diet for 190,000 of the last 200,000 years, and possibly longer (1.7 million years) depending on how far back you take man's roots (74, 75). In his impressive book on how food shaped human evolution, "The Quest For Food: Its Role in Human Evolution and Migration," Ivan Crowe makes it clear that we existed primarily off of meat, and that berries, tubers and other plant life were supplementary up until approximately 13,000 years ago. Crowe, describing our vital need for fat, makes the following statements (74):

"Without a sufficient quantity of carbohydrates or fat, protein cannot be metabolized and starvation will result even when other types of food are consumed. Even though the total fat content of game is only about one seventh of the total present in most domestic species, the flesh of wild animals also contains a far higher percentage of polyunsaturated fats than is normally found in the meat of domestic animals such as cattle. Flesh foods could therefore have made a significant contribution towards a balanced overall diet."

Crowe also chronicled the beginnings of farming dating back approximately 10,000 years - not a long time in the span of our development. Knowing that we existed on a diet predominantly consisting of meat for what could easily be a million years and that we began farming only 10,000 years ago, it is logical to reason our internal machinery and genetics may have not yet evolved to effectively operate on any other diet. Add to that the poisonous chemicals and processed food we are eating today, and we are left with an interesting scenario - a society whose health is declining at an exponential rate and over 1,000 diet books that don't agree with one another!

While we have only been farming for 10,000 years, scientific evidence indicates that the human genetic constitution has changed very little in the past 40,000 years (75). Therefore, one of the major reasons for our general ill health today is that, aside from eating a diet that is completely unnatural for us, we are eating FAR too much carbohydrate. Current estimates indicate that 90% of man's food supply is provided by a mere 17 plant species, but there are over 195,000 edible flowering plants that could be utilized by man. Of these 17 plant species that makes up most of our food supply, cereal grains provide 56% of the food energy and 50% of the protein consumed on earth (75). The percentage of this that is organically farmed is likely to be less than 1%!

Eating foods we are not 'built' to eat is taking its toll. Day in and day out, thousands of doctors and other health practitioners who address issues of food intolerance and food allergy are being bombarded with patients who have an array of disorders. Many of these disorders are thought to be unrelated to diet. I challenge that assertion.

Bill Timmins, ND, Founder of BioHealth Diagnostics in San Diego California, has stated that he feels 50-60% of white-skinned people are likely to be gluten intolerant. A gluten intolerant individual cannot metabolize the active protein (gliadin) in most grains, which results in an immune response by the body. Interestingly enough, when you look at the reported prevalence of gluten intolerance, it is greatest in the west, which has only been farmed for about 4,000 years. In the east, where they have been farming for 10,000 years, gluten intolerance is almost nonexistent (75).

Where We Are Today: A Quick Overview

This brings us into an interesting situation:

- a) We are eating completely wrong based on our developmental dietary requirements.
- b) We are eating far too much carbohydrate, and the carbohydrates we are eating come from a restricted variety of sources when compared to the vast number of plants we supplemented our diets with for over 1 million years.
- c) We are eating plants and animals that have been reared under conditions totally unnatural to the closed organic cycle, from which all plants, animals and human life emanated. Our *soils* have been damaged from chemical fertilizers, pesticides, herbicides and fungicides. Our *plants* are damaged from growth retardants, growth accelerators and chemicals to enhance color. And we are eating genetically modified plants for which our genetics and thus, our immune systems, are completely unfamiliar with!
- d) A large percentage of an average person's diet in an industrialized nation consists of highly processed foods. These 'foods' contain synthetic chemicals and concoctions that in no way represent any foodstuff we've consumed at any time during our human evolution. We are consuming food additives, colorings, preservatives and flavor enhancers at a rate of about 20 pounds (dry weight!) per person, per year (76).
- e) Today we drink water that is heavily contaminated with nitrates, heavy metals, and synthetic chemicals, including pesticides and medical drugs. No commercial sewage system or water treatment purification plants can entirely remove all these contaminants and some barely remove any!
- f) We breath air polluted with lead, carbon monoxide and nitrogen oxides from car exhausts, sulfur dioxide from chimney flues, radioactive iodine, caesium and a host of other radionuclides from flues of nuclear installations (77).
- g) And last but not least, we have so called health experts and government agencies telling us that *the United States has the cleanest, healthiest food supply in the world, that organic foods are not superior to conventionally grown foods, and that the chemicals in the soil and in your foods won't hurt you!*

As Sir Albert Howard wrote (13):

“Any weakness or defect in the health of any earlier link in the chain (soil-plant-animal-man) is carried on to the next and succeeding links, until it reaches the last, namely, man.”

In order to stop this vicious cycle of ever dwindling health, we need to help restore the optimal vitality and synergy with our eco-system and, as Sir Albert Howard suggests, we must start with the soil – *farming*.

Where We Are: The State of Farming

Farmers represent a group of people that seem to get little respect from anyone, yet are literally the backbone to our survival. I believe this lack of respect occurs because people do not have any real appreciation for how valuable the farmer is or what he does. Ever since World War II, we have taken the farmer and the food they produce for granted. This ignorance of farming has left both the farmer and the rest of the population in a very interesting predicament - the farmers are starving for money and we are starving for nutrition!

In the past 20 years, the farmer's food share has dropped from 35 cents per retail dollar to less than 9 cents per retail dollar. To put this in perspective, that would be like working for twenty years to feed the world, and in return your income dropped from \$35,000 a year to \$9,000 a year (78). Farmers are now caught in global competition, with many countries importing food and selling it so cheaply the farmers cannot compete. This has been driven in part because our uneducated public thinks quantity, not quality, is better - a consciousness that has been largely caused by the powerful conglomerates of fast food chains.

The very structure of today's global economy is fatal for the small farmer. Not so long ago, each region offered numerous economic niches for small, diversified farms, which provided the wide range of products nearby consumers needed. The globalization of food, on the other hand, impels every region to specialize in whichever commodity its' farmers can produce most cheaply and to offer those products globally. Meanwhile, all foods consumed locally must be brought in from elsewhere (79). In order to keep up with this fast paced food-game, farmers are forced to mono-crop, to use chemicals, and to do what ever it takes to generate product or be left behind. It has forced the farmers out of what use to be a skilled trade and a communion with the land. To stay competitive, farmers are forced to take out large bank loans to stay on the 'technological treadmill.'

Once on the technological treadmill farmers need to continually purchase the latest equipment, the most potent chemicals, and the highest-yielding seeds. Advances in technology may raise single-crop yields, but they also often lower the farmer's net income. Capital expenses, debt service and production costs eat up a higher proportion of the farmer's proceeds, while overall increases in output merely cause

the price of global commodities to drop. For example, the average poultry producer in the US are raising 240,000 birds each year because of factory farming techniques, specially formulated feed and heavy doses of antibiotics. But after expenses, this prodigious (and inhumane) production only earns the farmer \$12,000, or a mere five cents per bird. Such technological ‘advances’ typically do nothing to help farmers, while providing a boon to the manufacturers and marketers of the technologies (79). This assures that you, the consumer, end up with a progressively lower quality food at seemingly lower prices!

To top it all off, the farmers are now “owned.” Vertically integrated corporations now monopolize almost every aspect of farm production and distribution - from seeds, fertilizers, and equipment, to processing, transporting, and marketing. A single company, Cargill, through its ownership of grain elevators, rail links, terminals and the barges and ships needed to move grain around the world, controls 80% of global grain distribution. Four other companies control 87% of American beef, and another four control 84% of American cereal. Five agribusinesses (AstraZeneca, DuPont, Monsanto, Novartis and Aventis) account for nearly two-thirds of the global pesticide market, almost one-quarter of the global seed market and virtually 100% of the transgenic seed market. Control over food has become so concentrated that in the US, 10 cents out of every food dollar now goes to Philip Morris and 6 cents goes to Cargill (79).

Farmers hooked to the global economy have been reduced to little more than serfs in a corporate feudal system. Farmers find it impossible to raise hogs or poultry without agreeing to ‘terms that are the equivalent of the farmer becoming a hired hand on his own land.’ By now you should know where this has left your food supply, *but where has it left our farmers?* To answer that question, consider these points:

In Europe, 200,000 farmers and 600,000 beef producers gave up agriculture in 1999.

- According to the *Farmer’s Guardian*, UK farm income has dropped by as much as 75% over the past two years, driving more than 20,000 farmers from the land.
- British farm-gate prices for virtually every commodity – including beef, lamb, milk, pork, chicken, eggs, oilseed rape, fruit and vegetables – are so low that farmers are getting less for them than they cost to produce.
- Farm income in the US declined by nearly half between 1996 and 1999, with farm-gate prices so low at the end of 1998 that pork was selling for barely one-quarter of the farmer’s break-even price. The US Department of Agriculture (USDA) estimates that this year’s price for major commodities, such as cotton and soybeans, will be the lowest in more than 25 years.
- Suicide is now the leading cause of death among American farmers, occurring at a rate three times higher than in the general population (79).

Under the Veil of Deception

So there you have it! You now have a better understanding of how and why our food supply is in the shape it is. You now understand that globalization, a process that works to make the rich richer, is causing our farmers serious problems and forcing them to use hi-technology just to survive. All this at the expense of our soils, our plants, our animals and our eco-system.

Where We Are: The State of Us!

So what has all this done to us? We have deviated so far from our 'genetic game plan', it's a wonder we are all still here! But before I go on, and just so you don't get too depressed by reading this, I want to assure you that there is a way out of all of this, both for the farmers and for us. However, it requires IMMEDIATE ACTION on our part!

To give you an idea at the state we are in, consider what has come out of our so-called "clean and safe food supply":

- The USDA (reported in October, 2000) is imposing new rules that classify as "safe for human consumption" animal carcasses with certain diseases and open sores. The illnesses it has decided do not present a health danger are cancer diseases, illness caused by intestinal worms, infectious arthritis, glandular swelling and poultry pneumonia (airsacculitis) (80).
- Our food supply is laden with pesticide residues and petrochemical residues from plastics, all of which have estrogen-like endocrine disrupting effects in animals and humans. These xenobiotics, or foreign biological substances, have been linked to abnormalities and cancers of human tissues that are hormone sensitive. Such abnormalities include fibrocystic breast disease, breast cancer, cervical cancer and dysplasia, endometrial cancer, endometriosis and other ovarian diseases as well as prostatic hypertrophy and cancer (81).
- America ranks the lowest of all the major industrial nations in terms of life expectancy, yet spends more money on health care than any country in the world (Table 9)!
- Some children are born today with arterial plaque and the signs of heart disease!
- New research links obesity in children to lack of breast-feeding (82). Lack of breast-feeding and increased use of 'healthy' milk alternatives has also been linked to severe nutritional deficiencies in toddlers (83). This is not surprising considering the HUGE amount of money spent by companies like Gerber selling new mothers on the fast food approach to feeding children! (Recall how Gerber literally changed the laws in Guatemala.) If that's not enough, in a study of eight different non-organic baby foods produced by three different companies (Gerber, Heinz, and Beech-Nut), the Environmental Working Group found residues of 16 different pesticides - including probable human carcinogens, neurotoxins, endocrine disrupters, and oral toxicity No. 1 chemicals, which is the most toxic designation (65).

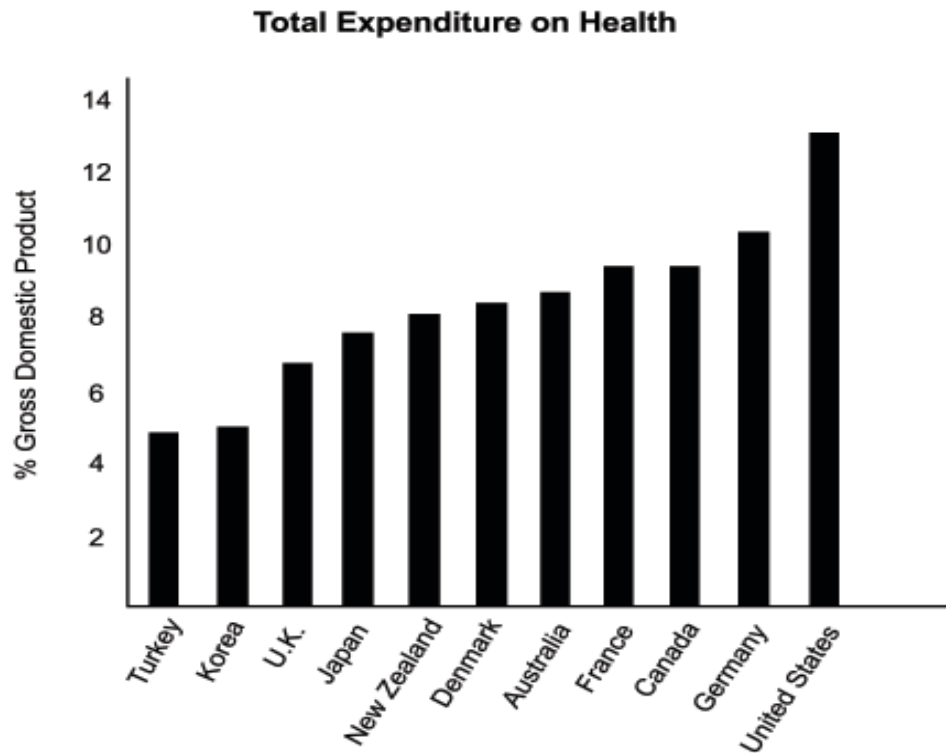


Table 9.

Source: OECD Health Data 2001

America ranks among the lowest of all the major industrial nations in terms of life expectancy, yet spends significantly more money on health care than any country in the world

The manufacturers of ‘baby fast food’ know from research that if they can get their processed garbage in a child’s mouth, particularly during the first two years of age, as adults they will keep returning to such foods without even knowing why. Processed foods become *comfort foods* and are heavily peddled by fast food chains (83).

- In the year 2000, Americans spent more than \$110 billion on fast food (83), which is about 90% of all the money spent on food by Americans!
- What we eat today has changed more in the last forty years than in the last 40,000 years (83)!
- Today, Americans drink nearly 600 cans of soda pop per person, with a significant number of teenage boys drinking between 5-6 cans a day. Worse yet, Coca-Cola has set itself a goal of increasing consumption of its products by at least 25% per year (83)! It may be of interest to know that each additional serving of a soft drink per day increases the risk of becoming obese by 50% (87).

Such marketing tactics have even managed to stun the wits of our school boards, with many of them finding soft drink sales to be quite lucrative. For example, The

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Sweet Water Union High School district has an exclusive deal with Pepsi that brings them an additional \$500,000 a year (84). Meanwhile representatives from school superintendents and school employees persuaded law makers in California to water down a nutrition bill passed by State Senator Martha Escuita D-Montebello (who wanted kids to eat better) so that they could sell junk foods in schools (84).

What is the result of all of this junk pedaling to our children? Strap on your seat belt:

- Approximately 50% of American children are overweight and the number of non-Hispanic white children who are overweight doubled between 1986 and 1998. The number of African-American and Hispanic children that have become overweight has increased 120% in the same 12-year period (85)!
- Adults are not faring much better. The number of obese adults has doubled since 1960 with 63% of males and 55% of females now being overweight or obese. This is an interesting statistic when one considers that the percentage of energy in the diet from fat has decreased during the past 20 years, yet the number of overweight and obese people has skyrocketed (88)!
- The treatment of obesity costs a whopping \$240 billion each year and approximately \$480 billion is spent on food in the US each year. Not surprisingly, an additional \$33 billion is spent on weight loss schemes every year (83)!
- Type II diabetes among children has increased 10-fold in the past five years. Type II diabetes, which not long ago was rare among children, now accounts for 40-50% of the cases.
- Fitness testing revealed that only 23% of students passed the mandatory California state fitness test, and one Los Angeles school had only a 1% pass rate! Incidentally, the fitness test is now a “reduced” version of the test that many of you would have likely taken while you were in school (86).
- US study found that people born in 1950 were 20 times more likely to suffer from depression than those born in 1910 (77). Care to venture what that statistic would be today?

Although I could go on listing how ill people are, I think I have made the point that the way we are farming and what we are eating is not working! It is, however, working very well for the drug manufacturers and it is helping to keep doctors very busy. In the year 2000, prescription drug sales amounted to \$145 billion (89), with an additional \$20.8 billion coming from over the counter retail sales (90). Such massive drug sales are no surprise when one considers that a single teaspoon of sugar can cause a 40-50% suppression of the immune system for up to four hours (91). Knowing that there are approximately 12 teaspoons of sugar in a single can of Coke, I’m sure the current state of our health becomes a little more clear.

Don't You Know It's The Water?

Many of you may be familiar with the Olympia beer T.V. commercials saying, "Don't you know it's the water that makes the Olympia Beer?" Olympia beer manufacturers wanted you to know how pure the water was when they made their beer. The subconscious message of course, was that if the water was pure, so too was the beer. That may have been the case at one time, but I doubt they could claim they use pure water now - no matter where they are getting their water.

It turns out that our bad soils, inferior farming methods, processed foods and sugar drinks have not only taken us to the point of consuming more drugs than ever in recorded history, but we have also drugged our waterways!

Chemists at an agricultural research laboratory run by the Swiss government were screening lake water for pesticide contamination when they ran across a puzzling result. Their instruments turned up a compound that resembled *mecoprop*, an herbicide they had been looking for, but it wasn't a perfect match.

Suspecting that they might have found the pesticide in an early stage of degradation, Hans-Rudolf Buser and Markus D. Müller probed further. To their surprise, the pollutant turned out to be *clofibric acid*, a widely used cholesterol-lowering drug. Immediately, the pair began scouting for the drug elsewhere, and they found it. It turns out it was everywhere. From rural mountain lakes to rivers flowing through densely populated areas, concentrations ranged from 1 to 100 nanograms per liter of water and seemed to correlate with how densely a region was inhabited. While barely detectable, these concentrations resemble those of other, more conventional pollutants found in the environment, such as a persistent, toxic ingredient of the pesticide *lindane*.

Upon further investigation, the scientists found that the drug residue they found had been reaching the water supply via human sewage. Sure enough, another team of researchers found drugs for regulating concentrations of lipids in the blood (such as phenazone and fenofibrate) and analgesics (including ibuprofen and diclofenac) in groundwater beneath a sewage treatment plant; this particular aquifer served as a source of drinking water.

It turns out this is somewhat of a concern because, though the body tends to break down any medicine it uses, how effectively it does varies by individual and by drug. As a result, 50% to 90% of an administered drug may be excreted from the body in its original or biologically active form. In other cases, even partially degraded drugs are converted back into their active form through chemical reactions with the environment (92)!

Thomas A. Ternes, another chemist wanting to know what happens to these compounds after they are excreted, launched a water-monitoring project to look for drugs in sewage treated water and rivers. Upon beginning his experiment, he

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expected to find only a few medicinal compounds. Instead, he detected 30 of the 60 most common pharmaceuticals for which he tested. These included lipid-lowering drugs, antibiotics, analgesics, antiseptics, and beta-blocker heart drugs. He has even found residues of drugs to control epilepsy and ones that serve as contrast agents for diagnostic X rays (92).

It gets worse. Not only have we succeeded in ruining our own food and water supply, we have managed to severely disrupt all life around us, including the soil, avian (bird) and marine life. According to Stephanie Hawks-Johnson, an orca whale researcher at the University of Washington, the presence of PCBs (polychlorinated biphenyls – pesticides) appear to be the primary reasons for the decline of salmon in the area. An orca needs 40-120 kg of salmon a day as food, but if it doesn't get all of it, the whale will draw from its own blubber supply, which causes PCBs to enter its system. The PCB now in the whale's system effects its immune, neurological and reproductive systems. The PCBs were originally stored in the whale's fat to protect its own liver!

Puget Sound has over 15 PCB contaminated sites, and with less salmon available, orca whales need to dive deeper to get fish, which are more likely to contain concentrated PCBs. Also, diving 110 meters instead of only 20 meters, requires far more energy expenditure from the whales. Combine all this information and you have a cumulative effect that has likely caused the noticeable decline in the orca population (92).

Knowing full well that our water treatment systems are not sophisticated enough to detect or filter medical drugs, industrial chemicals or pesticide residues, researchers have begun some very thought provoking experiments. For example, when researchers and scientists from the University of Minnesota placed male minnows in treated sewage water, the minnows developed female characteristics; something in the water had obviously tampered with the minnow's hormone systems. In a similar study, male walleyes, a species of fish found in the Mississippi River, were found to be sterile apparently from estrogen-like compounds from a sewage plant (93).

It is a sad truth that our drugs, our industrial chemicals and our pesticides are all affecting the lives of every living creature on earth. We are progressively killing any and all creatures in the soil, in the air, on the ground and in the water, *much of which is being done in the name of modern agriculture and modern medicine!*

We are not just damaging the eco-system and its inhabitants, we are causing more diseases in ourselves than we can even imagine. For example, there's a great deal of research indicating a relationship between chlorinated chemicals, and various cancers such as breast cancer, liver cancer and pancreatic cancer. Much more information is available on these topics, some of which can be found in the resources section.

The “Homeo-Pathologic” Effect

The science of homeopathic medicine was first developed by a German physician named Samuel Hahnemann (1755-1843) (49 p 74). Homeopathy is based on using very small doses of a given substance, mostly of natural or plant origin, to assist the body in overcoming sickness or disease. Through extensive testing, Hahnemann was able to identify which plants produced a particular symptom and, by cataloging the effects of each given plant on the human body, he used what is now referred to as the Law of Similars to assist people in recovering from a particular ailment.

The basic premise of the Law of Similars is that ‘like cures like’. For example, if you take a substance that has similar effects on the body as those produced by the virus, bacterial infection, or illness that you are fighting, the substance will provide just the right kind of energy to assist your body in healing itself.

What continues to be so difficult for conventional medical doctors to grasp is that homeopathy uses *very* small doses of any given substance. Dilutions can range from one drop of the treating substance per ten drops of a carrier fluid (1:10) all the way to dilutions that no longer contain even one single atom of the original treating substance. The homeopathic remedy works more via an *energetic system* than it does on a *dose response theory*, i.e. the more of a drug you take the stronger the response. Regardless of what traditional allopathic medical doctors think, homeopathy has helped millions of people remedy problems that traditional approaches could not.

I’m using this mini explanation of homeopathic medicine because it is now well known that the “dose response” approach does not explain how very small doses of a food, drug or toxin can have profound effects on our body. For example a good friend of mine, Dr. Clifford Oliver, spent many years in the field of allergy testing. He told me of many experiences where they would dilute foods that were known allergens to a particular person, such as peanuts, and test the person for a response. According to him, it was the extremely dilute solutions of peanut that caused the most massive responses in his subjects! This explains how someone allergic to peanuts can go into anaphylactic shock after eating a food that was simply cooked with peanuts, but did not actually contain any measurable amount of the peanut itself. In fact, I have heard of cases where people have had battles with the chef or waiters at restaurant because they still wouldn’t eat their food even after the cook took the peanuts out!

How Does This Apply To Organic Foods?

As I pointed out in the section on “Organic Farming”, the laws of organic farming in most countries do not allow the use of commercial pesticides, herbicides, or fungicides unless there is an emergency situation. In an emergency, a chemical may be used only after an inspection and approval by the Organic Farming Board. Organic farmers do not use chemical fertilizers and the soils are naturally balanced,

which means you don't get nitrate residues in your foods. Organic farming does not pollute the environment, the air, the soil or the water.

As I have documented extensively, commercial farming uses massive amounts of chemical aids to compensate for the failing soils and to terminate the predators sent by Mother Nature to return the failed crops back to the soil as green fertilizer – *natures police*. Even if only 1% of the chemicals used in commercial farming end up in our food, the residues from these chemicals, now found everywhere in our environment, are causing BIG problems, in what would appear to be considered micro-doses to most people. The fact is, many of the chemicals used today in conventional farming take decades to break down. Food scientists analyzing the chemical residues of foods at General Mills are continuing to find background levels of DDT and chlordane long after they have been banned from the US (30). However, as I noted earlier, the US sells certain banned pesticides to countries like Mexico to be used on foods that are then sold back to us!

In addition to the chemicals farmers are putting into our food, there are now more than 3,000 food additives, preservatives and colorings being added to our food. Not surprisingly, the FDA doesn't require food manufacturers to list food additives if they fall below the so-called "required safe limit" and are GRAS (Generally Regarded As Safe). Testing the safety of these chemicals is usually done by the company that wants to produce the chemicals or that wants to use the chemicals in their own food (94).

To put this in other words, imagine you are a chemical company or food manufacturer who has little or no concern for the end user of your product. Your only interest is to make a TV dinner that will last for two years and is cheap enough to sell in third world countries. So you do your own testing on the chemicals and provide the results to the FDA stating that it's safe. It's sad, but that's the process. There are a handful of freelance chemists that make a decent living doing this and will likely continue this practice. What do you think would happen if a scientist told a manufacturer of 'Brand-X TV dinner' that their additives are killing your rats? The manufacturer just finds another scientist! This is why most of the major food manufacturers employ their own scientists.

This is a replication of the thinking that has led farmers to use chemicals that are "generally regarded as safe" on our food. Not surprisingly, the same approval process that happens with chemicals *added* to foods takes place with the approval of chemicals *applied* to foods on farms. Of the 1400 US scientists working in the field of weed killers, only 75 of them work for government agencies and the vast majority are working for the chemical industry (95)!

To show you just what kind of wrongdoing occurring beneath our noses, here is a list of ingredients used in a Burger King strawberry milk shake that are not listed on the label because they are GRAS:

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Amyl acetate, amyl butyrate, amyl valerate, anethol, anisyl formate, benzyl acetate, benzyl isobutyrate, butyric acid, cinnamyl isobutyrate, cinnamyl valerate, cognac essential oil, diacetyl, dipropyl ketone, ethyl butyrate, ethyl cinnamate, ethyl heptanoate, ethyl lactate, ethyl methylphenylglycidate, ethyl Nitrate, ethyl propionate, ethyl valerbate, heliotropin, hydroxyphrenyl-2butanone (10% solution in alcohol), a-ionone, isobutyl anthranilate, isobutyl butrate, lemon essential oil, maltol, 4-methylacetophenone, methyl anthranilate, methyl benzoate, methyl cinnamate, methyl heptine carbonate, methyl naphthyl ketone, methyl salicylate, mint essential oil, neroli essential oil, nerolin, neryl isobutyrate, orris butter, phenethyl alcohol, rose, rum ether, g-undecalactone, vanillin, and solvent (83 p. 126)!

Now that you've seen what's not on the label, consider this - the GRAS classification of safety by the FDA does NOT guarantee the additive is safe. The FDA evaluates additives based upon their ability to cause cancer and harmful reproductive effects, generally ignoring other harmful outcomes. After all, who cares if you get sick, as long as you don't get cancer, right?! Additionally, a number of formerly GRAS additives have been removed from the GRAS list *after they were found to be harmful!* It's almost certain that some of the current additives that are currently being used and considered to be safe will one day be banned (94).

While there are a number of chemical substances that have been pulled from the GRAS list *after they were found to cause cancer in the 'human guinea pigs' that ate them*, there is abundant documentation on many *current* food additives still listed as GRAS that are highly dangerous. MSG is a prime example (96). There is ample research showing MSG can cause developmental disorders in the brains of babies during gestation and that it causes a number of other complications in humans (97).

The sad reality is that, for many chemical companies, making money is more important than whether or not their product causes cancer. For example, the weed killer *atrazine* was created in 1955 by Geigy SA and hailed as the second coming of DDT. While evidence of its toxicity was rapidly accumulating, it was not until 1984 that the EPA made note of its cancer causing properties. However, it is currently the most widely used herbicide in the US and by 1996, the annual profit from its sale in the US was \$90 million.

As successful as atrazine was for Geigy, Monsanto's rival product *alachlor* proved to be an even greater gold mine, with its 1996 sales totaling \$320 million. By the mid 1980's, the EPA had classifiedalachlor as a 'probable human carcinogen' and was pushing for an immediate ban of its use; Canada had already banned it. But under sustained pressure from Monsanto and its political cronies, the EPA rescinded its decision, and to this dayalachlor is used by tens of thousands of farmers in more than 90 countries (95).

As you can see, we have a big problem considering that we can't trust our government and there are scientists on the payroll of the very companies making the toxic chemicals being added to and sprayed on our food!

The Homeo-Pathologic Effect Is Real

Many of you have probably heard of the problem where people with certain infections are not responding to any of a hospital's antibiotics – not even the strongest ones! Not surprisingly, *Science News* reported 0.5 microgram per liter concentrations of fluoroquinolone antibiotics in sewage treatment plant water. According to Stuart Levy, director of the Center for Adaptation Genetics and Drug Resistance at Tufts University in Boston, this could be a serious problem (98). “Parts-per-trillion concentrations of these drugs can affect *Escherichia coli* and other bacteria,” he notes. The 1,000 times higher concentrations reported in German wastewater suggest to Levy that “these antibiotics may be present at levels of consequence to bacteria — levels that could not only alter the ecology of the environment but also give rise to antibiotic resistance.” (98)

In a nutshell, the problem can be traced back to our food and water supply. Our water supply is being polluted not only by our farmers, but by our own excrement; our waste carries the residues of medications and chemicals that can't be filtered out. Thus, we have levels of antibiotics floating around in our water that are unwittingly creating stronger, more resistant bacteria strains!

Recall that when researchers and scientists from the University of Minnesota placed male minnows in treated sewage water, the minnows developed female characteristics. I also reported on the male walleyes that were found to be sterile, apparently from estrogen-like compounds from a sewage plant (93). In both of these studies, it's clear that something was tampering with the animals' hormonal systems. These findings are not surprising when one considers that many of the plastic bottles and food packages we are using, as well as pesticides that are commonly found in our water supplies and food, all produce xenoestrogens. These xenoestrogens, which are picked up by estrogen receptors in human and animal bodies, cause an estrogenic response in the physiology of the recipient ultimately causing an imbalance of their hormonal system.

To appreciate just how potent low doses of these hormone-mimicking chemicals are, consider that estradiol, the body's key estrogen hormone, operates at concentrations of parts per trillion, which is the equivalent to one drop of water from a string of railroad tankers 10 miles long (99)! These potent hormone-regulating chemicals are frequently used to manufacture pesticides because they make the parasitic organisms sterile and wreak havoc with their hormonal systems, ultimately creating the inability to reproduce. All the while, scientists, doctors and professors are telling us the levels of pesticides in our food and environment are safe because the concentrations are too low to harm us!

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What the so-called experts of the chemical world haven't taken into account is that few people only eat one carrot, one peach, or have a piece of meat without having a plateful of vegetables. A dash of pesticide here, a sprinkle of chemical toxin there - it all adds up to a powerful chemical cocktail in your body! For example, it was found in New Zealand's *Total Diet Survey 1990/91* that DDE, a persistent metabolite of DDT, was present in 80% of meat studied, including beef, pork, chicken, lamb, sausages, meat pies and luncheon sausage. DDE was found in 100% of the samples of butter and cheese (63). What is significant here is that most organochlorines (like DDT) have been deregistered in NZ since 1989!

To round out our plate, the World Health Organization has shown that European diets, whose standards are generally stricter than those in the US, could theoretically contain more than 12 times the permitted Acceptable Daily Intake (ADI) for organochlorines. (Did I mention that organochlorines bio-accumulate in the body as well?) There is such an extreme increase of ADI because the permitted Maximum Residues Levels (MRLs) vary from 8 parts per billion (ppb) to 2000ppb depending on the food (100). These figures are likely to be much worse in the US!

While much of this has been swept under the rug by chemical manufacturers, medical doctors and government agencies, new research is emerging with regard to low dose exposures from multiple chemical residues. One of the important new facts that has emerged from this research is that negative reactions to the exposure of certain chemicals and drugs are only observed at very low concentrations, as little as a few parts per trillion, but disappear at higher doses (63). This is partially due to the fact that higher doses may trigger a detoxification mechanism in the body and changes the cell metabolism that would normally mask the low-dose effect. If the dose is too low, the body will not try to detoxify the chemical and the offensive substance will impart its damage to our body.

An Italian study, designed to reflect the levels of exposure commonly found in the human food supply and the distribution of residue levels, found that a mixture of 15 pesticides impaired liver function and induced free-radical damage of DNA at low doses in rats. Of significance is that the DNA damage was not observed at higher doses administered (101)!

Based on the mechanisms of homeopathic medicine and its low dose theory, it is likely that a great number of people who consume conventionally farmed foods are not only suffering from a myriad of yet-to-be-discovered disorders related to low-level chemical toxicity, but are also suffering from disruption of their subtle energy systems. The subtle energy systems are part of what creates our Life Force (Figure 24). When our life-force is disrupted by the energetic pattern of a toxic chemical, it is called a "Miasm."

Richard Gerber MD, an expert in vibrational medicine, defines a miasm as "energy patterns which have been incorporated into the human bioenergetic system from

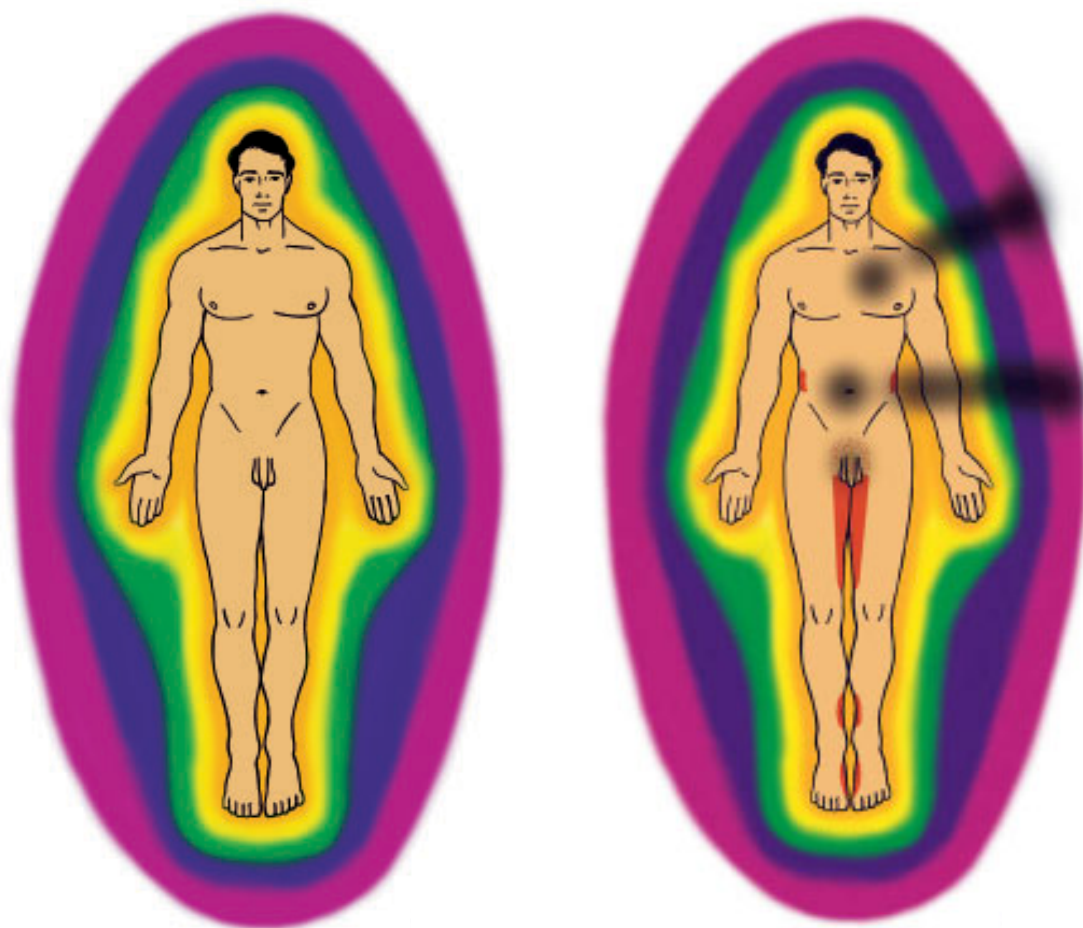


Figure 24. Normal and Distorted Energy Fields

Normal (left) energy fields around a body compared to distorted fields (right) due to a prostate problem

the level of the subtle bodies, through the auric field, and down to the molecular and genetic levels.” (49 p. 454) Gerber tells us that miasms from heavy metals, petrochemicals and radiation tend to impede the flow of life-force into the human bioenergetic system, and create a greater potential for the manifestation of numerous illnesses.

Over the years while working in an orthopedic physical therapy practice, I have seen several clinical cases of what is often referred to as “multiple chemical sensitivity.” The fact that these people were coming to see me suggested that there are likely thousands of people seeking help from a myriad of doctors to deal with the barrage of ailments that result from chemical exposures. Symptoms of chemical exposure can be experienced in many of the body’s physiological systems including musculoskeletal, neurological, visceral, hormonal, circulatory, and psychological. Basically, just about any complaint you could come up with can in some way be related to chemical sensitivity. To give you an example of just how chemically

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overloaded some people are, here at the C.H.E.K Institute, we have clients who were taking as many as 17 different drugs, prescribed by as many as 6 different physicians, none of which were in communication with one another to prevent *death by treatment!*

Food intolerance and multiple chemical sensitivity problems are reaching astronomical levels and are affecting far corners of the globe. For example, about as far north as one can possibly go, the Inuit people on Baffin Island who mostly consume marine mammal meat as an essential staple of their diet, were found to be consuming up to 20 times the recommended safe limit of the pesticide chlordane. A sugar cube sized piece of 'muktuk', the skin and surface fat from the beluga whale, contains the accepted maximum weekly limit of PCB's. In one week, some Inuit people eat a *hundred times* that amount (107)!

While there are a multitude of approaches for patients presenting with any number of symptoms, switching to organic foods and clean water is an absolute necessity to begin moving a person's physiology toward homeostasis. When dealing with issues of toxicity, it is well recognized that a person's liver has an individual rate at which it can detoxify any given substance. Therefore it is important to work directly with a client's doctor to reduce, and preferably eliminate, all medical drugs. Virtually all drugs put a variable load on the body's detoxification system and thus will magnify the effects of low-level environmental chemical exposure.

Just about everyone living in today's industrialized world is under constant bombardment by all sorts of chemicals. *All* of these chemicals require varying degrees of detoxification from our body, and some people are more taxed than others. The primary step of detoxification in the liver is enzyme modulated called the cytochrome P450 and P448 pathways. The activation of enzymes is dependent upon cofactors, consisting of vitamins, minerals and trace minerals. Based on evidence provided here, all of these substances are clearly more abundant in organic food (Figure 25). In 1831, little was even known about enzymes, yet by 1994 over 3000 enzymes had been discovered. Is it possible that there are an untold number of nutrients, secondary nutrients and other possible enzyme cofactors that exist in organic foods we are not even aware of yet? Organic foods are particularly likely to contain many of these nutrients because of the vast diversity of microorganisms in organic soil. Microorganisms are

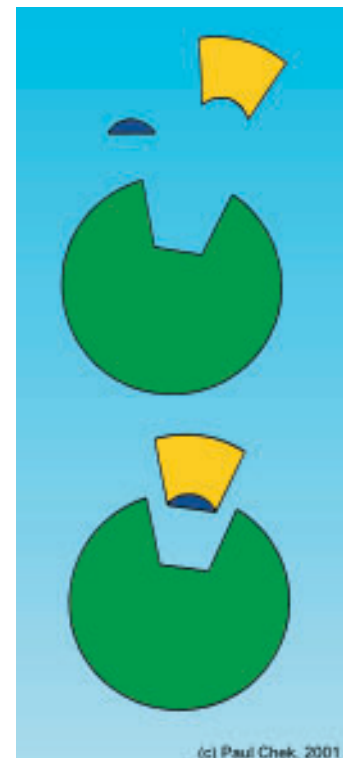


Figure 25. Enzyme Cofactors

Enzymes are dependent upon vitamins, minerals, trace minerals and possibly secondary nutrients for their optimal function. When the body is deficient in any given necessary enzyme cofactor, the relevant enzyme pathway will become disabled.

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known to manufacture a number of substances that exist in the plants themselves.

Thousands of people involved in natural medicine have had their share of challenges with the medical profession because most traditional doctors do not believe in multiple chemical sensitivity syndrome or that there are chemical problems with our food. As you will see below, it doesn't pay for most medical doctors to believe in these problems, for if they admit that they do, prescribing drugs is counter productive to getting their patients back to optimal health!

Chapter 7

DISEASE APPEARS TO BE LUCRATIVE!

We have established that the health of man begins with the health of the soil. As I have shown you, we have had the knowledge, technology and the ability to correct the problems caused by the advent of chemical fertilizers yet we have chosen not to. Remember the peasant farmers who were opposed to the use of chemical fertilizer back in 1840? *We should have listened to them!* After WWII, there was big money behind the promotion of chemical fertilizers coming from the companies and governments that had previously invested in the production of munitions. These companies had an investment in chemical farming. It turns out that for those in the chemical fertilizer business, destroying the soils of our farm lands works out very well for them - the more chemical fertilizer someone uses, the more they end up needing.

As I pointed out earlier, the more chemical fertilizer used, the more the soil microorganism population is damaged, and the more the crops are weakened from the soil up. This provides a grandiose opportunity for the pesticide, herbicide and fungicide manufacturers – they make you dependent on their product! The symbiotic business interests garnered between the chemical fertilizer business and pesticide business are well demonstrated by the fact that, although there has been a ten-fold increase in pesticide use since 1945, *annual crop loss due to diseases and pests has doubled (7)!*

These crop losses have provided great opportunities for companies like Monsanto to work toward another stronghold on the farming market – genetically modified (GM) plants and seeds. One of the touted benefits of GM crops is that they are resistant to pesticides. Basically, this means that conventional farmers can spray as much pesticides on their crops and soil as they want, and the plants are *seemingly unaffected*. But as with most things that seem too good to be true, there is a catch. The more pesticides that are sprayed on a crop, the greater the likelihood you are to eat foods containing pesticide residues. This ends up being financially beneficial for those who have investments in both the drugs causing a disease and the drugs designed to treat that particular disease.

I wish I could say that “the establishment” had no other choice but to make more and stronger pesticides and, although I would never wish GM crops on my worst

enemies, it would be nice to go to bed at night believing that companies like Monsanto had a thread of moral fiber from which to operate their organization. However, the evidence strongly suggests otherwise.

Another example of the unnecessary use of pesticides occurred back in 1951 using something called Radionics. In 1919, a technique known as Radionics was developed by Albert Abrams, M.D. Through much experimentation, Abrams was able to determine that he could diagnose and successfully treat disease by using electronic emissions of low-dose treatment (11 p. 317-342). Abrams was a highly respected physician, a professor of Pathology at Stanford University, a genius inventor and an independently made millionaire. Yet despite all this, the American Medical Association and British Medical Association went to great efforts to paint Abrams as a quack and his technology as useless, right up until his death in 1924.

*Note: The trend of the AMA stamping out any cost effective cure that they can't own, patent or control is well chronicled in a video presentation entitled "Hoxsey." This video should be mandatory viewing for anyone interested in their own health and understanding of the motives of the AMA and FDA!

Although Dr. Abrams had been dead for over 25 years, Curtis P. Upton, a Princeton-trained civil engineer whose father was a partner of Thomas Alva Edison, aspired to test the Abrams technology for the purposes of pest control in agriculture. In the summer of 1951, Upton partnered with his classmate William J. Knuth, an electronics expert, to test Abrams method of Radionics in the cotton fields of a 30,000-acre farm near Tucson, Arizona. Using the Radionics technology developed by Abrams and having advanced it using their own developments, they were able to successfully use Radionics to broadcast the frequency of homeopathic doses of pesticides into the cotton fields.

That fall, the Tucson *Weekend-Reporter* ran an illustrated two-page spread headlined: "Million Dollar Gamble Pays Off for Cotton Man." The article stated that a "Buck Rogers type of electronic pest control" had allowed the cotton grower to achieve almost 25% more cotton per acre than the state average and produced approximately 20% more cottonseed. W.S. Nichols, the manager of the cotton fields remarked that his workers had noted an almost complete absence of snakes in the areas subjected to the Radionic treatment - the explanation being that the absence of pests equates to a lack of food for snakes!

While it was determined through numerous experiments that Radionics was highly effective and could save farmers as much as \$30,000 a year in operating costs through the elimination of insecticides, the technology and its users soon fell under attack by the likes of the USDA and pesticide manufacturers. After many attempts to obtain studies showing Radionics to be a highly effective and cost efficient means of pest control, the developers of this revolutionary agricultural technology were forced to shut their doors (11 p. 317-342). Another win for the poison dealers and big money interests, and another loss for human kind! Fortunately, Radionics was

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not completely lost and is still being successfully used by small pockets of farmers and medical practitioners around the world.

If as a global society we can achieve enough awareness of what is going on, we can use our dollars, votes and united voice to force the government into using some of these better and safer technologies. If we do this, we have a chance of saving our eco-system. But it won't be easy because there is far too much money to be made by keeping people sick!

Some of you may have a hard time believing things are as bad as I'm saying they are. Realizing it takes time to research these topics, I've included a portion of an article published in *The Ecologist* that deals with corruption in medical funding for so-called "research" and the ulterior motives of drug companies.

Excerpt from *The Ecologist*: "Health Ltd." by Helen Fullerton and Martin Walker:

"Organic, natural health-care is under attack. If the current trend continues, say Helen Fullerton and Martin Walker, the world's health may soon be entirely in the pockets of the mighty pharmaceutical corporations.

Health and its maintenance, in contemporary 'developed' society, is complex. Perhaps the most important part of this complexity, however, is the ongoing conflict between individual health-care and the professional, pharmacological response to disease which has come to dominate society.

General levels of health in developed societies have steadily improved over the last hundred years, broadly because of developments in the life sciences and public health. This progress, however, seems to bear little relationship to the delivery of medicine. While scientific medicine has generated some solutions, it has also bequeathed deadly problems. Crucially, it has led to a virtual takeover of 'healthcare' by pharmaceutical corporations and an acceptance that pharmaceutical medicine is primary and best. Yet the extent of the damage done by drugs is enormous. In the US in 1994, it was estimated that there were over two million severe adverse drug reactions, of which 106,000 were fatal(1). Similar calculations suggest that in England, adverse drug reactions are the third most common cause of death (2).

Drug companies have always supported 'orthodox' medicine. Medicine's high-ranking professional bodies were themselves set up with help from pharmaceutical companies, and still receive grants for running costs, hospitality, building and printing. The Royal College of GPs, for example, received £105,000 from Glaxo, Wellcome and Beecham when it was set up in the early 1950s. The Royal College of Physicians has received funding from the pharmaceutical industry, as has the Royal Society of Medicine. Given this funding, is it surprising that reports sponsored by such bodies so often lambast the use of vitamins, food supplements, nutritional and alternative medicine?

Today, however, the corporatisation of medicine is gaining speed and reaches far beyond the professional institutions of medicine.

The Medical Research Council

The Medical Research Council (MRC), a public body, is the closest thing to a national research institute in Britain. Originally independent, funded entirely by government and concerned with public health, it has veered wildly away from its original purpose. Today, while most of its £282 million a year funding is public money from the Department of Trade and Industry, the direction of its research is strongly influenced by commercial interests. From 1997 to 1998, eight of the 16-person MRC Council declared vested interests, four of them in the largest pharmaceutical and chemical companies. The MRC's 1996 Annual Report stated that 96 industrial consultancies are held by MRC staff, and that the MRC itself holds equity in five life-science companies.

MRC earnings from collaboration with industry in 1995 and 1996 were £6.2 million. A considerable part of the MRC's work involves carrying out lucrative pharmaceutical trials for the big drug companies. For example, the 'ISIS-4' trial conducted by the Clinical Trials Unit at Oxford, supported by the MRC and the British Heart Foundation (BHF), compared the effect of traditionally used magnesium in heart attack patients with that of Capitrol, a drug produced by Bristol Myers Squibb (BMS). The results of ISIS-4 suggested that magnesium was ineffective compared with Capitrol. As a consequence of this study, NHS policy shifted away from the use of the cheap and effective magnesium and towards expensive pharmaceutical drugs.

This new clinical policy was accepted despite the fact that it was BMS which paid \$6 million for the study and the trial came under considerable critical review because of its methods; especially the use of high doses of magnesium. While collaborative projects with big drug and chemical companies earn money for the MRC, they also help the drug companies make huge profits when drugs given the MRC stamp of approval are sold to the NHS.

The Movement for Real Doctors

In the mid-1980s, national campaigns against 'health fraud' were set up in the US, Canada and Britain. Although these organisations maintained that they were principally concerned with the delivery of 'effective health-care', in fact they constituted aggressive campaigns against the use in health-care of vitamins and food supplements, and against 'alternative' health therapies and their practitioners. In Britain, the Campaign Against Health Fraud (HealthWatch) was set up in 1987. Financed initially by medical insurance and pharmaceutical companies, HealthWatch waged an aggressive and very public campaign against alternative, complementary and natural medicines.

A number of its original members were associated with the Wellcome Foundation drug company and its charitable arm the Wellcome Trust. The inauguration of the campaign in the US and Canada, as well as in Britain, began with the licensing and testing of Wellcome's anti-AIDS drug AZT. The marketing of AZT set a new gold standard for aggressive, covert drug marketing strategies. Every possible influence was used to sell

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AZT, nationally and internationally both to governments and direct to consumers. Five out of the 25 members of the Medicines Commission which eventually licensed AZT in Britain had connections with Wellcome.

Following the licensing, Wellcome placed money and representatives wherever they could sway opinions. A year after the drug had been licensed, Wellcome gave £10,000 to the UK's All-Party Parliamentary Group on AIDS, the gatekeeper for information on AIDS treatments in the House of Commons. Representatives of Wellcome's PR firms were placed on committees which allocated AIDS funding; the funding went only to groups that were uncritical of AZT. In a move deliberately intended to promote AZT among GPs, Wellcome granted £144,000 to an AIDS foundation set up by the British Medical Association (BMA). Between 1987 and 1993, when the 'Concorde' trials helped hammer several nails into AZT's coffin by demonstrating that it actually worsened the health of asymptomatic individuals who had tested HIV positive, the drug earned over £200 million for Wellcome.

Contrast this with the case of germanium. In 1988, a highly-qualified bio-science researcher, Dr Sandra Goodman, compiled a literature review of organic germanium. Discovering that researchers from the 1920s onwards had investigated its anti-viral properties, and believing that the substance might help people who tested HIV positive, Dr Goodman pressed the MRC to carry out trials. Despite sending papers to all the relevant committees, meeting with scientists, doctors and politicians, Goodman got nowhere. Soon after Goodman began to press for the testing of germanium, items began to appear in the media about its dangers to health. The hardest-hitting article⁽³⁾ carried quotes from Professor Vincent Marks, a founding member of HealthWatch. Marks' department at Surrey University was in receipt of half a million pounds' funding from the Wellcome Foundation, some for HIV-related work. Marks called germanium 'a worthless and dangerous poison', and said that 'they [germanium, cadmium and other natural drugs] were killing people by the thousands from kidney failure'. Not long after this article appeared, germanium was banned from sale by the UK Department of Health.

Dr Goodman wrote to the Japanese researchers whom Marks had quoted as reporting kidney damage due to germanium. She found that these researchers had been referring to germanium sesquioxide, a mineral form of germanium. In their return letter, the scientists told her that in recent research they had found organic germanium to be completely non-toxic."

Find the remainder of the article, which discusses how the medical community has made great efforts to control the supplement industry, at www.theecologist.org.

The National Alliance for the Mentally Ill (NAMI) bills itself as "A grassroots organization for individuals with brain disorders and their family members." But some mental health activists say the Virginia-based organization, widely viewed as an independent advocate for the mentally ill and an influential voice in mental health debates, is overly influenced by pharmaceutical companies. It would certainly

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appear so, given how much money they received from them. According to internal documents obtained by Mother Jones, 18 drug firms gave NAMI a total of \$11.72 million between 1996 and mid-1999 (105).

As you can see, organizations that should, for the benefit and protection of public health and safety, receive funding only from government or private sources, are clearly *dancing with the devil when they accept money from drug companies!* How can any research organization or scientist be expected to conduct research in an unbiased manner and, better yet, be expected to look for the etiology of what ails us when their very livelihood is being provided by those with an investment in disease?

Another excellent piece of investigative research into the benefits of investing “In Health And In Sickness” was presented in *The Ecologist* in October, 2001 by Solomon Hughes (102). Hughes uncovered some startling realities with regard to how much money can be made by investing in health *and* disease at the same time. He investigated board members of one of the world’s largest drug companies and where they had had placed their investments. His findings may both shock and disappoint you!

Solomon found the following information when he investigated the directors of Glaxosmithkline, the world’s second largest health firm:

- Sir Richard Sykes, Glaxo’s chairman, is also a director of mining and minerals at Rio Tinto, a company with a daunting record for pollution. Since 1991, this operation has been battling workers regarding cancer and other illness among company employees and local children. They eventually agreed to pay compensation on over 200 claims.

As it turns out, Sir Richard Sykes, board member of Rio Tinto, a company accused by campaigners of causing cancers and respiratory diseases also chairs Glaxo, which sells almost 3.2 billion pounds of drugs per year aimed at the cancer and respiratory market.

Summary: Sir Richard Sykes is a board member of a company that is causing cancer and respiratory disease (Rio Tinto), and he is the chairman of a company that sells drugs for cancer and respiratory disease!

- Paul Allaire who serves on Glaxo’s board, is also a director of the food giant Sara Lee. While Glaxo’s mission statement includes “enabling people to do more, feel better and live longer,” Sara Lee pleaded guilty in June of 2001 for selling bad meat, killing 15 people and causing six miscarriages. When inspectors visited the Sara Lee plant, they found poor hygiene and foodstuffs contaminated with feces. Sara Lee paid \$4.4 million to settle with American federal prosecutors, although victims

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were enraged that the firm was allowed to plead guilty to a misdemeanor and avoid the more serious charge of felony. Ironically, Sara Lee's corporate slogan is *Winning Through Integrity*.

Summary: Paul Allaire is on the board of a company claiming to promote health (Glaxo) and is director of a company pleading guilty for selling contaminated meat that killed people!

- Tobacco boss Derek Bonham, who serves as a director of Imperial Tobacco, sat on Glaxo's board up until his retirement in May 2001. In addition to its cancer and respiratory drugs, Glaxo sells three products aimed at smokers. Glaxo makes 472 million pounds annually selling over the counter 'stop smoking' aids and its new anti-cigarette prescription drug, Zyban.

Summary: Bonham is director of a tobacco company who makes cigarettes (among other things), and also sat on the board of a company that sells anti-cigarette drugs!

- Donald McHenry, a director for Coca-Cola Corporation also sits on Glaxo's board. The worldwide consumption of Coca-Cola is thought by experts to be linked to the exponential increase of Type II diabetes among children and adults. Not surprisingly, Glaxo brings in 462 million pounds a year from sales of "Avandia", a treatment for type II diabetes.

Summary: Donald McHenry is director of a company that sells a product strongly linked to Type II diabetes and sits on the board of a company that sells a Type II diabetes drug!

- Sir Christopher Hiogg is on the board of Glaxo while simultaneously serving on the board of Tia Maria, well-known maker of alcoholic beverages. Another man, Sir Ian Prosser, simultaneously works for Glaxo and is chairman of pub owner Bass. All the while, Glaxo is enthusiastically trying to sell its drug Zofran as a treatment for alcoholism.

Summary: Two cases of people being paid money for their involvement with alcohol companies, who also are involved with a company selling an alcohol treatment drug!

Drug companies in the US spend approximately \$5 billion annually to send their sales representatives to doctors' offices. These sales reps keep FBI-style dossiers on each physician, which include information such as the names of family members, golf handicaps and clothing preferences. Hard sales tactics and small gifts are part of their sales pitch including perks such as (103, p. 59):

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- Outright compensation to doctors for their participation in the prescribing of particular drugs to their mental health patients.
- Free vacations, computers, cellular phones, and even free educations for prescribing drugs!

Where does all of this leave us? We have seen that in spite of early evidence showing how chemical fertilizers damaged our soils, and against the warnings of the world's greatest agricultural experts, chemical fertilizers were mass marketed to farmers by the British government in 1957 the tune of some 24 million pounds (\$32 million); marketing efforts in the US were comparable on all accounts. While statistics showed that pesticide use had increased at the same time crop damage was increasing, great minds showed us we could clearly eliminate the use of pesticides using homeopathic doses and Radionics – a technology that was terminated by the USDA under heavy influence from the chemical pesticide industry.

The constant and underlying factor that many people have overlooked is that as the health of our soil and food has declined, so too has our health and vitality declined!

Ironically, 62 years ago two extraordinary men gave us the following messages:

Friend Sykes stated, *“Unless a man can really and truly farm, he ought not to be entrusted with the care of the soil, for he will never understand the message that disease conveys.”* (10 p. 48).

Additionally, Sir Albert Howard, told farmers and consumers that pests, diseases and parasites are *‘Nature’s Professors of good husbandry’*. He emphasized that *the appearance of such pests should be seen as indicators of bad management and thus the best possible means of identifying mistakes and applying corrective measures* (13, 14).

The only message we see today is that in the past 100 years, chemical and drug companies have been successful in doing more damage to the human race and our entire eco-system than had done by all human beings for over 1 million years prior!

The medical profession and disease researchers have let us down by not informing us of what should have been obvious over 70 years ago. Just as most farmers ignored the works and advice of great men such as Sykes and Howard, medical doctors have ignored the “Father of Medicine” himself, Hippocrates, who said (104 p. 65):

“It appears to me necessary for every physician to be skilled in nature, and to strive to know, if he would wish to perform his duties, what man is in relation to the articles of food and drink, and to his occupations, and what are the effects of each of them to every one.”

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Before I share evidence of the use of organic foods and farming for the improvement of humankind and our health, I would like to point out that we cannot wait for someone else to change this situation! We must do it ourselves *by not buying garbage food and subscribing to the “doctor fix me” mentality, which is so rampant today.* We must change the way we farm, we must change the way we eat, and we must change the way we think about medicine!

Chapter 8

**EVIDENCE OF THE HEALTH GIVING POWERS
OF ORGANIC FOODS**

While there is little research on the beneficial effects of organic food on humans, there are numerous case studies that act as suitable indicators for the time being. Also, though not 100% reliable, animal studies can give a good indication of the effects foods, drugs and poisons may have on human beings.

Although a number of the case studies I am presenting here may not have used foods directly from a “certified” organic farm, I consider them to be viable. The foods eaten by the subjects in these studies were whole-foods and, unless otherwise indicated, grown on soils untouched by pesticides or chemicals. Many of the studies and books I’m using as references came from a time when there was no such thing as “certified organic” and it was more of a situation between ‘us’ (chemical free farmers) and ‘them’ (conventional farmers).

Organic Foods Were The Fabric of Human Development

The point I wish to make here is that our ancestors ate unadulterated food that had not been treated by chemical means. For many reasons, this is what allowed the strong to survive and flourish.

Although chemical fertilizers and pesticides had begun to reduce disease resistance in crops, animals and humans by the 1930’s, Weston A. Price’s worldwide search for healthy people provided irrefutable evidence that a whole food diet is of the utmost importance for robust health and longevity. Price also found that any deviation from a region’s native diet was correlated with an increase in dental caries, significant developmental craniofacial abnormalities, and an increase in the incidence of disease. Price noted that exemplary health could be maintained using different diets, though the diet had to be native to a particular region and people (35).

Price used the term ‘high immunity’ to describe a level of health determined by an individual’s optimal growth and development, and the relative absence of dental caries. Several examples of health-sustaining diets that provide high immunity are as follows (35 p. 474-5):

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- The people in the isolated valleys of Switzerland used exceptionally high-vitamin dairy products and entire rye bread, with meat about once a week and vegetables as available, chiefly in the summer.
- The people of the Outer Hebrides ate seafoods, oat cake and oat porridge with limited vegetables in season. Marine plants were also consumed.
- The Eskimos and Indians of Alaska and the Far North consumed sea and land animals, but limited vegetables and very limited seeds. Green foods were used in season and in some districts, were stored. The organs of animals were used liberally.
- The people of the South Sea Islands, whether Polynesian, Melanesian or Micronesian, liberally ate sea animals, and marine and land plants, but ate a limited amount of seeds and lily roots.
- The cattle tribes of Africa used milk, blood and meat supplemented by plant foods. The agricultural tribes of Africa consumed domestic animals, the animal's organs, fresh water insects and a variety of plants.
- The Australian Aborigines ate large and small wild animal life, wild plants, and, where available, fresh sea life.
- New Zealand Maori ate copious amounts of sea animal life, marine plants, marine birds and their eggs, land birds, seeds of trees and plants, and vegetables, particularly fern root.
- Indians of the plains of North and South America achieved their health through a diet of organs and tissues from wild animal life and a large variety of plant foods. They also consumed fresh and salt water animal life, as available.
- The coastal Indian tribes of North and South America ate large amounts of sea animal life and plant life.
- The Amazon Jungle Indians consumed fresh water animal life, small land animal and birds, and wild plants and seeds.

Diets that caused disease in the tribes once they altered their optimal food intake, something Price called a 'displacing diet', generally included highly refined sugars, flours, canned goods, vegetable fats and polished rice. (Remember what happened to the animals when McCarrison and Pottenger fed them cooked or refined foods?)

When visiting these tribes, Price gathered samples of foods they had been eating and chemically analyzed the food in his laboratory. Price also investigated individuals who had lost their 'immunity' to dental caries due to their 'foods of commerce' consumption. He then put these individuals on special diets designed to be as close as possible in vitamins and minerals to their culture's primitive diets. Price states, "The result of doing so not only has prevented the development of dental caries (when caries is the problem involved) in practically all cooperating individuals but has controlled it where active in over ninety per cent of the individuals so studied."

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Price noted that, in general, all primitive diets were found to contain two to six times more nutrients and body building material than the displacing foods. This means that where Price found healthy vibrant people, they were eating at least twice as much, and sometimes more than six times as much, high-quality, life-giving nutrients in their primitive foods than were found in the ‘displacing foods’.

Iceland, another example of a land once untouched by white man’s food, is described by Saxon in his book *Sensible Food For All* (109 p. 76). Saxon, referring to the works of Martin Behaim, tells a story similar to what Price had found in his travels:

“The island was settled in the ninth century by colonists from Ireland and Scandinavia, who took with them cattle, sheep and horses. Their diet was practically carnivorous for several hundred years. Martin Behaim (quoted by Burton), writing of Iceland about A.D. 1500, stated: “In Iceland are found men of eighty years who have never tasted bread. In this country no corn is grown, and in lieu, fish is eaten”....Rickets and caries of the teeth were almost unknown in Iceland in earlier times....The health conditions were good...until after 1850....During the last half century caries has steadily increased in Iceland.”

Sighting reason of increased dental disease and ill health, Saxon goes on to say, “Half the population now lives in trading stations and makes free use of imported processed foods, such as white flour and refined sugar.”

Study Health To Find Health

Major General Sir Robert McCarrison (Figure 26) was a medical doctor in the British Military. If you were to look in a number of health books written between 1920 and 1960, you would find numerous references to his works. McCarrison was different than most of today’s medical doctors in that he believed *to find health, you must*

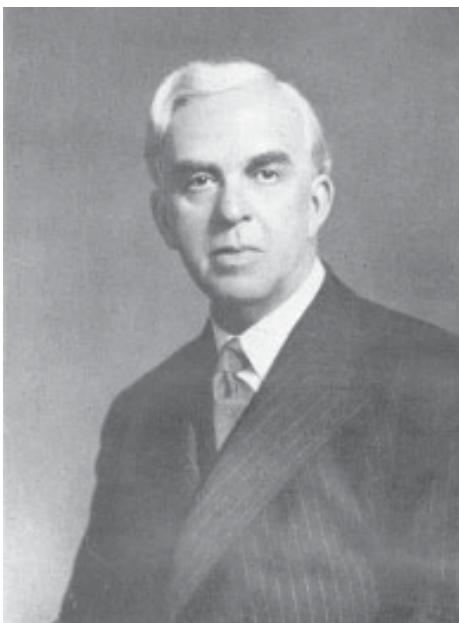


Figure 26. Sir Robert McCarrison, M.D.

Dr. McCarrison’s research in India during the early 1900’s was pivotal in showing that whole-food diets were a catalyst to health among the Hunza people. His research also clearly showed that when rats were fed the diets of less healthy societies, the rats reflected the lack of health of the people being modeled, acquiring the same diseases, and commonly in similar proportions as the people the diets were modeled after. McCarrison’s research still serves as a very important message today in the era of segmented healthcare. Sadly, in the 1920’s and 30’s when Dr. McCarrison shared his research findings with British physicians, he was ignored!

(c) Paul Chek, 2002

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study health. As many of you are aware, the majority of our scientific and medical efforts are squarely aimed at disease – we have specialists and scientific exploration for just about every disease. McCarrison, who's rat studies I referred to above, chose the Hunza people as the model of health and decided to feed their diet to one of his groups of rats. You may remember that those rats had remarkable health and were almost completely free from disease, even after 54 years of rat life!

The Hunza people of India are described by McCarrison as a people who:

- Are very strong and robust mountain men and women.
- Have a great capacity for work.
- Possess very high intelligence, being excellent farmers and engineers.
- Experience very little disease, particularly of the types seen among westerners and those that frequently eat white man's food.
- Live exceptionally long, healthy lives. I recall hearing a lecture by New York cardiac surgeon, Richard Pooley who made several references to the Hunza as possibly the healthiest people alive. He said that there were men still working in the fields and having sex at the age of 110, and that the Hunza elders referred to a man in his sixties as *young* (110)!

The Hunza's native diet consisted of both raw and cooked vegetables, and the few times they did cook their vegetables, they drank the water the vegetables were cooked in. They ate little meat but made regular use of raw milk - sour milk, buttermilk and ghee were consumed in place of our pasteurized milk when preservation was needed. They were great lovers of fruit and preserved it by drying. Whole-grain breads and cereals were consumed, often with dried fruits when fresh fruit was unavailable.

What is of great importance to our discussion is that the Hunza people were a beacon of health and were quite resilient to outside dietary influence. The Hunza people are famous for their farming expertise, which is an important fact when we reflect upon the words of Sir Albert Howard and Friend Sykes, stating that *farming and food quality are inextricably linked.*

When McCarrison studied less healthy groups of Indians and applied their diets to rats, he had much the same result as he did when feeding rats an English diet. The rats typically ended up getting the same diseases as did the humans eating the same diet, and often in the same proportions. With unique research endeavors and great effort, McCarrison showed us the definite link between diet and health. Like Pottenger, he showed that whenever we eat processed foods, a reduction in health should be expected.

McCarrison's research produced quite different results than the current medical research of his day (and ours). Using his research laboratory, *Coonoor*, McCarrison identified causes of common illnesses, which have been compared to the traditional medical opinion in Table 10 (111).

Causes of Pneumonia	
<p>Textbooks</p> <p>Weakness of old age Debilitating habits Exhaustion Chill Previous attack Some other illness, chronic or acute A blow on the chest Pneumococcus microbe</p>	<p>Coonoor</p> <p>Faulty food</p>
<hr/>	
Causes of acute infection of the middle-ear	
<p>Textbooks</p> <p>External atmospheric conditions Colds in the head Infectious diseases, such as measles, pneumonia and influenza Sea baths Nasal douches</p>	<p>Coonoor</p> <p>Faulty food</p>
<hr/>	
Causes of Peptic Ulcer	
<p>Textbooks</p> <p>Occupation: Anaemic and dyspeptic servant girls, shoemakers, surgeons</p> <p>Injury</p> <p>Associated diseases such as anaemia, heart disease, diseases of liver, appendix, gall bladder, teeth, tonsils</p> <p>Nervous strain Disturbances of the circulation Large superficial burns Certain families are said to be more liable Increased acidity of the stomach Several of the above in combination</p>	<p>Coonoor</p> <p>Primarily faulty food specifically such as that of the poorer classes of Southern Travancore</p>
<hr/>	
Causes of Tuberculosis	
<p>Textbooks</p> <p>Infection with tubercle bacilli Inherited predisposition Living in dark, close alleys and tenement houses Excess of alcohol and other weakening habits Confinement in prisons, workhouses and work shops Catarrh of respiratory passages Diabetes, kidney disease and other chronic infections which lower resistance</p>	<p>Coonoor</p> <p>Inadequate nutrition Massive doses of infections</p>

Table 10.
Causes of Disease According to McCarrison

(Source: Ref. 111)

(c) Paul Chek, 2002

It is unfortunate that people seeking whole-food diets grown on organic soils are a very small minority. Among those that typically follow such a diet are a small number of elite athletes, health fanatics, cult factions, some religious groups and terminal cancer patients, of which many have been failed by the traditional medical system.

Many alternative doctors and nutritionists administering alternative cancer treatments have found that using a completely organic diet is essential for a successful outcome (9 p. 48, 111-114). Nutritional cancer therapies generally yield good results when they involve avoiding pollutants and toxins, and exclusively contain organically grown foods and nutrients (116). “The overwhelming number of patients following alternative cancer therapies are those who have been declared terminal, with minimal life expectancies, following initial allopathic treatment. The ability of these patients to gain full remission from all clinical evidence of cancer is therefore very significant.” (9 p.48)

The Peckham Experiment

The Peckham Experiment was a landmark study that looked at the integration of society, education, exercise and healthcare. In 1929, the five-year study began in a suburb of London called Peckham. The study was broken up by WWII and, while the experiment resumed after the war, it never reached pre-war capacity. Shortly thereafter, the study ended due to financial problems and a relative sense of post-war strain among participating families, many of which incurred the loss of family members.

The Peckham experiment is a worthy study, which by all accounts should be conducted again today because of its unique design. The physicians who created and oversaw the study were G. Scott Williamson, M.D. and Innes H. Pearse, M.D., physicians who were progressive even by today’s standards.

While the details of the study are far too extensive to outline here, there are some significant findings worth noting. Keep in mind the fact that this study was begun 76 years ago! The examination of 1530 people resulted in the following (117):

- 9% of the people studied had a clean bill of health. At the time of the second evaluation, 1,666 individuals were evaluated and only 144 were classified as *healthy**
- 8% of those examined were found to be diseased and already under treatment.
- 83% of the people had something wrong with them and had done nothing about it!

* The physicians used the following definition as their description of health: “Health ensues when the organism is not turned in on itself to effect a compensation but is exercising its adaptative function on the total situation, i.e. on the environment rather than on itself.”

Under the Veil of Deception

The point I'd like to make is that this study, performed 76 years ago, used a city suburb where the majority of people were average working citizens like you and me. However, the soil of that time was far less depleted and much less poisoned - *yet only 9% of the people studied were considered healthy!* What do you think the results would be if they ran the same study on a major city suburb today? My guess is it would be frightening to say the least.

In Table 11 (from 117), you can view the relative relationship between the physician's different categories: diseased; well-being; and without disorder. It should be noted that 'well-being' did not indicate what you might think. According to the physicians of the experiment, "Well-being ensues as the result of effective compensation, but since compensation is a dysfunction it is accompanied by a subconscious want of ease. The effectiveness of the process of compensation is estimated from the organism's appreciation of its total situation and not from its internal situation." The physicians found that people harboring disease were also found to exhibit a sense of well-being!

Category	Definition
Disease	The subjective state of the sufferer identified by pain, discomfort, disability and/or limitation of action i.e. sufferer is conscious of disease, whether complaining or not. It may take more than one disorder to produce disease and the primary disorder may not produce the final disease. Some disorders producing disease may be obvious - manifest disorders; some may be uncovered by a physician - cryptic disorders; others may escape recognition yet still produce disease - incipient disorders. Disease ensues in the absence of effective compensation for some disorder.
Well-Being	The subjective state where the person asserts they feel fit. May have disorders that do not produce pain, discomfort, disability nor limit activity. Springs from consciousness of the effectiveness of the compensatory mechanism of the body, maintaining the balance of the whole individual.
Health	Individuals where no disorders can be detected. The organism is exercising its adaptive function on the total situation i.e. on the environment rather than on itself.

Table 11.

Definitions of disease, well-being and health as defined by Drs. Williamson and Pearse in 1947.
(Source: 117)

The Need For Better Food in the 1930's!

The study in Peckham was a family experiment, and not a study of individuals. With that in mind, much of the Peckham study's design was focused on *family integration and development*. The goal was to implement a diet and exercise program as a prophylactic measure to help prepare mothers to achieve a high standard of health and to bear healthy children. With this in mind, Dr. Pearse and Mrs. Crocker wrote the following in 1938:

“When it comes to the quality of food the experimenter is faced with many difficulties. We wished to ensure a full diverse diet for certain selected families later to become pregnant, either to sustain a normal physiology or to replenish the reverses of a deficient physiology. We assumed that the ordinary market should yield good rich vital milk and vegetables. This turned out not to be so. The available milk was either not guaranteed clean and tubercle free and therefore not usable, or was only to be had at a prohibitive price, or was pasteurized in which case it no longer retained its vital characteristics. Or again, spinach, said to provide iron and hence to relieve an iron deficiency, in fact only does so in some specimens. Whether it does so or not probably depends upon the nature of the soil in which it is grown. The result of this has been that in order to control these dietetic factors we have had ourselves to establish a Home Farm to grow vegetables and produce milk - an illustration of the difficulties met with this kind of experiment.

In view of this equivocal position with regard to food in the open market, it is easy to tell why substitutes for vital foods are now being so widely used by the public as well as in medical practice. **The food available cannot be relied upon to contain the requisite vital factors for maintenance of adequate nutrition. But clearly the use of substitutes is a therapeutic - not biological procedure.** Indeed, it is neither rational nor practical to go through elaborate commercial processes to extract from food substances essential to life and then to feed those substances to substitute for the inadequacies of the food itself. Furthermore, it is already known that however careful the extraction process, it destroys the vital balance of the product as found in well grown fresh food; and the *balance* as between the different vitamins for example is as important as is any individual vitamin.

The human body in health is the most efficient machine and the most economic for the extraction of essential factors from food. Disease and disorder may call for therapeutic assistance: health does not. Artificially made vitamins are essentially drugs for curing or alleviating disorder: not food for the healthy.”

Under the Veil of Deception

Amazingly enough, for the past 18 years of my practice I have faced similar problems, even though this was written 64 years ago! It is also impressive that Innes Pearse, a medical doctor who, like Sir Robert McCarrison and Weston A. Price, was in touch with the *etiology* of people's problems, said that such vitamins were a compensation for a deficient food supply! I personally see vitamins as the nails that hold a ship together, while the foods we eat is the wood used to build the ship (Figure 27).



Figure 27. The Modern "Vitamin Mentality!"

Today, it is common for people to think that their expensive vitamins (as expensive as gold) will be the catch-all, allowing them to run their body on a diet of poor macronutrients, as represented by the poor quality of wood used by the ship builder on the left. Right: While the true ship builder may not have "golden vitamins", he does have optimal macronutrients (wood), therefore can expect much better performance than the ship builder on the left!

Drs. Pearse and Williamson may have also been aware of Sir Albert Howard's writings. In their description of the farming procedures used to raise food for the Peckham Experiment subjects, they followed the *Indore process*, a method of preparing compost and producing humus using organic principles.

Pearse and Crocker also detailed the process of detoxification often seen by many current natural medicine doctors. Describing a family with numerous symptoms indicating suboptimal physiology and deficient nutrition, Dr. Pearse explains the following:

"They all decide to take a course of vitamins. Three weeks after beginning the course they feel much better. Six weeks later the father develops a boil. Three weeks later the boy develops a series of boils. They are miserable with the painful condition. Are they now worse or better?"

How can the boils be assessed against the constipation, acne and blepharitis (inflammation of the eye lids) that have disappeared? One is acutely painful; the others they took no notice of. If they continue with the vitamins the boils subside and no further crop appears. They again feel well, better than ever. But if they stopped the vitamins when the boils came, gradually the original painless symptoms of avitaminosis (without vitamins) would have reappeared. The explanation for this seems to be that the vitamins raise the resistance of the body to germs of low virulence which in his initially low state the individual had been tolerating. This toleration is yet another aspect of compensation. Once the resistance is raised still further, the invaders are permanently cast out and no further boils ensue. Tolerance in this case is a manifestation of the failure to function; intolerance a sign of growing health – of functional action.”

Experiments such as the one done at Peckham, along with the numerous references I have cited here, clearly show that people have been suffering from malnutrition-related clinical and sub-clinical problems for approximately 100 years. In fact, well-known Nutritional Biochemist Jeffery Bland uses the term *vertical disease* to describe the state that most people are living in - they think just because they are standing and moving everything is fine, but they are in such a state of compensation that they are quickly progressing toward *horizontal disease (otherwise known as death)*!

There are numerous parallels between farming principles, plant health and their disease resistance, with human health and our resistance to disease. For example, Arden Anderson, PhD., DO, a physician who is an expert consultant in biological farming, makes some very interesting points with regard to what it takes to grow healthy plants. Dr. Anderson states (118):

“In order to grow healthy disease resistant plants we must provide the soil with:

- Adequate water
- Adequate Food (nutrition)
- Adequate oxygen
- Comfortable abode”

Dr. Anderson also makes it clear that the same items must be provided for all living things to be healthy and disease resistant (118).

Dr. Anderson teaches us that plants and soils, like human beings, all operate on *energetic principles*. He describes in detail how when inferior crops are grown, their energetic frequency drops down, signaling to insects and parasites that the *plants are sickly and need to be returned to the earth*. To help explain this, Dr. Anderson describes research on how insects interpret infrared signals and electromagnetic signals to identify their food. He also states that insects can pick up the energetic

signature of a sick crop over a half mile away and up wind!

Clinical observation indicates that the exact same principles can be seen in human beings. As I showed above, all foods have a given life-force energy, which is directly related to the energetic frequency Dr. Anderson refers to. As described earlier, evidence of the changing electromagnetic frequency was demonstrated by Dr. Valerie Hunt when the aura of her subjects significantly changed after they went from eating junk food to health food. When we eat too much of what Dr. Price referred to as “displacing foods” (foods with minimal life-force energy that devitalizes the body) we too produce an energetic frequency that signals to parasites and diseases – it is time for nature’s police to come and collect!

Evidence that many of our body’s ecological environments are far more favorable for pests than for health is seen with the abnormally high number of people suffering from intestinal dysbiosis. The famous Dr. Kellogg taught that the correct bacterial balance for a healthy bowel is about 85% friendly lactobacillus bacteria, and 15% unfriendly, gas-producing *Bacillus coli*. Not surprisingly, Dr. Bernard Jensen found that after running laboratory tests on 500 of his patients, the ratio was inverted - the average person had 15% friendly and 85% unfriendly bacteria populations (119 p. 71)!

Dr. Jensen’s findings are not surprising when you consider that the friendly bacteria of the human gut are quite sensitive and are easily damaged by excess stress, caffeine, antibiotics, alcohol, chemical toxins and, according to Dr. Jensen, nearly all cooked foods.

Clinically I have found that where there is dysbiosis, there is an ideal ecological environment for parasites, such as worms. Relating this to the Peckham Experiment, of the 1,666 people evaluated at the second check-up in the Peckham Experiment, 983 of them were iron deficient, 284 had rotten teeth, 114 had infected tonsils, 106 had avitaminosis and 94 had clinical malnutrition (117 p. 52-3). Interestingly, when these subjects were given vitamin supplements without eradication of their parasite infestation, they were unable to recover from their condition. The doctors found that many people could not effectively absorb the nutrients that should have restored optimal physiology and health because the invading parasite, often worms, was creating avitaminosis and malnutrition. This may have resulted from a number of reasons including: the parasite was consuming the nutrients before the person could, the parasite altered the host’s physiology such that the metabolic machinery became dysfunctional, or possibly both.

This brings us to an interesting point regarding the state of ill health that has become the norm among many industrialized and third world nations. While many traditional and natural medicine doctors will admit that there has been a significant increase in dysbiosis and parasite infestation among their patients, most of them

are of the mindset that:

- a) Parasites are bad and should not be in the body.
- b) Parasites should be immediately eradicated by medication (natural or chemical).
- c) Once the parasite is gone or the dysbiosis is treated with probiotics, everything will be fine. This is incomplete thinking at best!

Current research shows that friendly bacteria are our guardians, always competing for space with unfriendly species in every nook and cranny of our bodies. Microbiologists have known this from decades of research on one of those nooks, the human tooth. Here, several hundred different organisms exist in what is essentially a miniature ecosystem. This particular eco-system is complete with early and later colonizers, stages of succession, a climax community and a rich biodiversity involving predators, prey, scavengers and relationships of mutual dependence – just like that found in an old growth forest (120).

These little creatures, often thought of as unfriendly, have also been shown to be vital to the development of our immune system. In fact, recent research suggests that some level of parasite and unfriendly bacteria activity may be vital in developing and strengthening our immune system. Also, while consulting with naturopathic physicians in Australia, I was told of how Aboriginal medicine men would make people with specific diseases eat certain parasites harvested from dead animal carcasses to bring about recovery!

Researcher John Turton from the Medical Research Council in England noted the absence of his own normally pronounced hay fever attacks during two summers in which he was infected with hookworms, a state he had brought upon himself in order to rear larvae for his own research (121). Another illustration of the potentially symbiotic relationship between us and our parasitic friends was demonstrated by Joel Weinstock, a professor of internal medicine at the University of Iowa. Dr. Weinstock ran a preliminary clinical trial in which six patients suffering from severe Crohn's disease were treated with a dose of live parasitic worms. In five of the six, the disease went into complete remission during the period when the harmless microbes were in the patients' bodies. The sixth patient also showed significant improvement (120).

As I've shown, the problem is not so much having bad germs or parasites, but not developing an environment that is conducive to growing them! For example, if you were walking in the woods of a national park and noticed that there were deer everywhere, would you think the forest was infected with deer or would you conclude that the forest provided the perfect ecological environment for deer to thrive? While the answer should be obvious, it is also clear from my clinical experience and research that the reason so many people are unhealthy today is because we are creating an intestinal environment that is much more like that of a garbage dump than a forest! It seems that conventionally farming and food processing is creating

an internal ecosystem that is more conducive to *over-population* of unfriendly bacteria and parasites. Many people have gone beyond the amount of parasitic creatures that are health giving and well into the territory of nature's police. If they don't clean up or diet and lifestyle soon, they parasites and bacteria will do what they were designed to do!

While human beings and all living things are endowed with an incredible will to survive, when we look at the hundreds of photos in Dr. Price's book "Nutrition and Physical Degeneration" (40), we see that in just one generation, those lacking in necessary nutrients showed significant structural malformation and low disease resistance. In addition, Dr. Pottenger's cat studies showed that once a living organism has achieved structural abnormality and poor disease resistance, if that organism produces offspring *it takes three generations of exposure to good food to 'undo' the damage that was done!* Therefore, all these people who are eating nutritionally deficient and chemically processed food are probably harming their children even more than they are harming themselves!

No Vitamins, Just Food

While I have referred to the Peckham Experiment and the health-giving effects of taking vitamins and switching to organic foods, there is plenty of evidence of the power of organic foods *alone* to make favorable and substantial changes toward better health. In her now famous book *The Living Soil and the Haughley Experiment* (37 p. 197-8), a book I think should be mandatory reading for all school children, Lady Eve Balfour describes reports from people that switched from conventionally grown foods to organic foods. Among the many benefits people noticed were:

- The disappearance of rheumatism
- The arresting of dental caries
- Reduction in susceptibility to colds and infections
- Curing of allergy symptoms
- Curing of supposedly incurable heart complaints

The children of the Peckham Experiment were not the only children in England to experience the benefits of a switch to organic foods (37 p. 144). A London boarding school, which grew its own produce, switched from artificial fertilizers to Indore compost. The headmaster's records indicate that following the switch, cases of colds, measles, and scarlet fever, which used to run rampant through the school, were now confined to single cases imported from the outside.

In 1940, Ysabel Daldy, founder of the Physical and Mental Welfare Society of New Zealand Inc., published an article in *Science* outlining a nation-wide feeding study. Mrs. Daldy provided Lady Eve Balfour the details of the study, writing in her summary, "New Zealand has for years past been carrying out a nation-wide experiment whose outcome has proved beyond reasonable doubt that a people reared upon eroded and otherwise exhausted soils becomes a people whose condition gradually deteriorates."

Professor Worley, MA, DSc, Chief of the Department of Chemistry at the University of New Zealand, (37 p. 145) describes the deforestation and subsequent erosion of New Zealand's soils, in addition to the practice of chemical fertilization. He states, "By what we add, as well as by what we fail to restore to the soil, we are profoundly affecting its chemical composition, its biological component and its physical nature. We are thus affecting the quality of the goods grown on such soil, and, in consequence, the health and vitality of the population. It is now recognized that much of our food has serious deficiencies, and that very many of our ills are due to this cause."

While Mrs. Daldy provides a list of statistics showing the decline in public health that would be shocking by today's standards, a statement by Mr. H.B. Tennent, agricultural editor of the *Weekly News*, gives a good picture of the situation. In 1938, the *Weekly News* was New Zealand's leading agricultural journal. Tennent writes:

"Animal sickness and the rapidly increasing populations of hospitals and mental institutions can in a great many cases be directly traced to the mineral and other deficiencies in the foods produced from improperly balanced soils."

Clear evidence that the condition of the soils were poor and were causing health problems in the plants, animals and people of New Zealand, Dr. G.B. Chapman carried out a notable feeding experiment in 1936 at the hostel of the Mount Albert Grammar School, Auckland NZ. (37 p.147)

The subjects included 60 boys, teachers and staff. The report states, "The dietary at the hostel was liberal, being well above the customary standard for boarding-schools; yet the boys consistently suffered from colds, catarrh, septic tonsils, epidemics of influenza, dental caries, and other preventable complaints."

Under Dr. Chapman's influence and guidance, change was made from chemically grown fruit, salads and vegetables to naturally produced foods using soils treated by properly prepared humus. Although meats and bread were still brought in from the outside, during the 12 months following the changeover, the following results were observed as a result of the organic produce:

- A declining catarrhal condition among the boys. Catarrhal conditions have previously been general, and in some cases very bad among the boys. In specific cases, the elimination following the change over was complete.
- There was a marked decrease in colds and influenza.
- In the 1938 measles epidemic, which was universal in New Zealand, the new boys suffered a more acute attack, while the boys that had

been at the hostel for more than a year suffered milder attacks, with a much more rapid convalescence.

- It was noted that some boys entering the hostel would go through a period of detoxification for several weeks, which would not happen again.
- There were fewer accidents during the football season.

Having fewer accidents during the football season suggests that organic food made the boys more resilient, with better bone and muscle development, and therefore less susceptible to fractures and sprains.

Balfour also tells the story of Major Layzell in East Africa. Major Layzell found that the vegetables grown for his labor force on land manured with humus resulted in a marked improvement in the general health and physique of his workers - the men performed their tasks much more easily than before the new system of nutrition was introduced.

Could We Be Farming Our Way To Extinction?

According to a recent analysis by University of Missouri epidemiologist Shanna Swan (122), the average sperm count of men in the United States and Europe has plummeted by more than 50% since the late 1930s. This finding fuels ongoing concerns that male reproductive health may be deteriorating, and that environmental pollutants may be the cause.

Based on 61 studies published since 1938, involving a total of nearly 15,000 subjects, Swan found that average sperm counts among healthy American men have dropped from 120 million sperm per milliliter (million/ml) of semen in 1938 to just over 50 million/ml in 1988, a decline of 1.5% per year. In Europe, sperm counts have fallen to roughly the same level, though twice as fast, at 3.1% each year between 1971 and 1990.

Should you be worried? *Not if you eat organically raised vegetables and animals!* The “Organic Farming Food Quality and Human Health” report (9 p. 48) cites two current research studies showing that sperm like organic food! The studies found that groups of men who consumed organically grown food had average concentrations of 99 and 127 million sperm/ml respectively, the latter having the highest intake of organic food – greater than 50% of their diet. The control groups who did not eat organic food had average concentrations of 69 and 55 million sperm/ml, respectively.

While the authors state that “these differences may have been due to other lifestyle or geographical factors such as country versus city dwelling or occupational exposure to other chemicals,” it is interesting to note that the men eating organic foods had sperm counts very similar to men in 1938, while those not eating organic foods have sperm counts in accordance with those reported by epidemiologist Shanna Swan. It is also worthy to note that *no matter who you are or where you are, we are all being exposed to toxic levels of industrial chemicals!* Eating organic foods is a sure way to lessen the overall burden on your system.

Chapter 9

THE “CHOICE POINT” IS UPON US!

We have now come full circle around the Wheel of Life (Figure 2). You have learned about the importance of a living soil and that the friendly microbial workforce in the soil is not only alive, the little creatures are intelligent, sensitive, and require the same conditions for a productive life that we do - clean water, oxygen (good air), good food (nutrition) and comfortable abode (118). We have seen that the soil, the very foundation of life on this planet, is in grave trouble - we have traumatized, poisoned, pulverized, abused and eroded it! How much longer can we afford to do this? How much longer will our precious soils take a beating and still produce anything at all? How long can we dwindle our precious life source, while increasing the population at a faster rate than ever in history?

After seeing the evidence I have presented here, there should not be *any* question about whether or not *we must move toward organic farming and we must support small local farmers to protect our food supply and our soils!*

We have seen that conventional farming methods have been benefiting doctors and drug manufacturers, and that producing animals and crops riddled with disease is causing the very same in people who eat that food! Sir Albert Howard, who proved over and over again that Nature is far more reliable than science, left many pearls of wisdom to guide us, yet it appears no one has listened! A classic example of Howard’s wisdom and applied knowledge can be seen in this passage as reported by Jenks (35 p. 103):

“It was his contention that the protein built up by plants with the aid of such biological agencies is very different from the protein which they form when stimulated by chemical fertilizers and which he termed ‘bastard’ or ‘degenerate’ protein. He believed that in this protein synthesis within the plant would be found one of the main keys to health.”

In other words, Howard is saying that the proteins of the plant are only as good as the soil and what the farmer puts on it. Animals eating plants composed of “bastard” or “degenerate” proteins, as well as the human beings eating such plants and animals, can expect to have their health suffer proportionately. Proteins are the building blocks of life, *the stuff we’re made of*, and if we eat bastardized proteins we are made of the same proteins!

Under the Veil of Deception

Our so-called scientists and chemists are of the mindset that they can outwit nature. They have developed a conventional farming model that suits their industrial ulterior motives (money!), which, according to Anderson (118):

- a) Food and fiber production is a war
- b) Nature is the adversary
- c) Insect, disease and weed pests are viewed as normal and the *Wrath of “God” on mankind.*
- d) Soil is inanimate.
- e) Nature is random, unintelligent and flawed
- f) Man knows a better way

The logic of this so-called “Church of Agriculture” is:

- a) Reductionistic – the whole equals the sum of its parts.
- b) Linear – based on straight line in vitro observation and principles.
- c) What you get is only equal to, or less than, what you put in – purely entropic.
- d) If all else fails, *get a bigger hammer!*

It’s rare to find someone like Arden Anderson, Ph.D., D.O., who is not only a physician, but an expert in biological farming as well. Therefore, it may be worthwhile to heed his words in response to the conventional farming model, “*There are no flaws in nature, only man’s management of nature!*” As sickening as the modus operandi of the conventional farming model may sound to you, the chemical industry has done a great job selling it to farmers who are suffering the brunt of Nature’s recompense for their gluttony and gullibility by failing health, suicide and diminishing profits.

We have seen that our animals are being farmed in conditions that make concentration camps look friendly by comparison. In concentration camps people were more likely to die of starvation than be fattened with food containing plastic, cement powder, saw dust, sewage, industrial waste and dead animal remains! The waste from industrial farms, along with billions of tons of human waste, is dumped into the ocean each year and is completely disrupting the closed organic cycle of the ocean and all that lives there. We are not only damaging marine life, but *all* life, and all the while doctors, chemists and scientists are telling us that our food supply is clean and safe.

It is high time that we realize that we are at a major “Choice Point.” One of the first choices to make is who we will be supporting using our food dollar! To restore our health and eco-system, we need to look for, support and encourage biological farmers, biodynamic farmers, and organic farmers that apply what Dr. Anderson refers to as “the two fundamental aspects of *Real World* testing and interpretation.” (118) It is outlined as follows:

1. The Model Standards:

- a) Food and fiber production are part of nature
- b) Nature is the guide and guardian
- c) Insects and disease, “pests”, are Nature’s garbage collectors. Weeds are Nature’s Care Takers.
- d) Soil is living and dynamic, analogous to the ruminant digestive system.
- e) Nature is ordered, intelligent and Perfect.
- f) Nature is the example to follow – ideal plant, soil and animal characteristics.

2. The “Logic” - Science

- a) Wholistic – the sum of the parts is greater than the whole.
- b) Non-linear – keyed to tuning based upon harmonics and in vivo observation and principle.
- c) Energetics is the fundamental basis of all physiology, animate or inanimate.

It’s obvious that if scientists, chemists and medical doctors followed Dr. Anderson’s proposed Model Standards, we would not be living in a world laden with disease and dysfunction and we would not be supporting a medical system that breeds symptom suppression. While there are many great physicians among us, for every one with an interest in the etiology, there are at least 100 that need to be reminded of what Hippocrates said 2500 years ago:

“It appears to me necessary forevery physician to be skilled in nature, and to strive to know, if he would wish to perform his duties, what man is in relation to the articles of food and drink, and to his occupations, and what are the effects of each of them to every one (104 p. 65).”

During the past one hundred years, if physicians would have concentrated their efforts toward working with nature and not trying to outsmart Her, surely they would have used their wisdom, knowledge and power to control chemical companies and industrial polluters with the same virulence they have unleashed upon chiropractors, natural healers and those that have found cures for ‘incurable’ diseases!

One reason I call this time in history a “choice point” is because we need to decide whether or not we will be leaving our children with a world in worse shape than when *we* got here. I am concerned because there is seldom a cry, seldom an effort to stop this nonsense, and seldom a person willing to drive to the edge of town to support the suffering organic farmers who desperately cling to their little piece of living soil. So quick are we to cover our pimples of toxicity with make-up and suck our fat away with plastic surgery, yet so few will show respect for the beautiful body God has given us. So quiet and passive are people about our sad state of affairs - one can only assume they have eaten themselves into a state of oblivion. We have

reached the point at which we must *wake up* and take action because *Nature's Police are coming!*

There Is Hope For The Future

Sir Albert Howard said (13):

“If we are willing to bear in mind Nature’s dictates a) for the return of all waste to the land, b) for the mixture of the animal and vegetable existence (he is referring to raising both animals and vegetables on the same farm here), c) for maintaining an adequate soil reserve system for feeding the plant, we shall rapidly reap our reward, not only in a flourishing agriculture, but in the immense asset of an abounding health in ourselves and our children’s children.”

We have had a brief over-view of the ingredients that go into health as presented by the great doctors of our past. One such doctor was Sir Robert McCarrison, M.D. who gave a lecture to a group of British medical doctors over 70 years ago regarding the superior health of the Hunza people of India. He closed his lecture with profound words that seem to have fallen on the deaf ears of his fellow physicians. However, I believe that his words are appropriate now, more than ever (111 p. 70):

“Things nutritional are not, in essence, so different in India and in England. The chief difference is that they have a settled traditional diet into which they were born and a settled traditional way of growing it and caring for it. They have a whole system, a diet as a whole thing, whole not only in itself, but in its history, its culture, its storage, and its preparation.

And with their whole diet they preserve the wholeness of their health. This also we have failed to do. Our health or wholeness has fragmented no less than our diet. A swarm of specialists have with the invention of science settled on the fragments to study them. A great deal is found out about each several disease; there is a huge, unmanageable accumulation of knowledge, and this and that disease is checked or overcome. But our wholeness has not been restored to us. On the contrary, it is fragmented into a great number of diseases and still more ailments. We have lost the wholeness, and we have got in its place fragmentation with a multiplicity of methods, officially blessed and otherwise, dealing with the fragments in their severalty.”

Clearly McCarrison was calling for a return to what matters the most – concern for our food, how it is prepared, cared for, and the importance of eating a whole food diet for the maintenance of health. He believed in eating the foods indigenous to one’s native land and was not in any way a faddist with regard to diet - he was interested in the principles of a healthy existence in concert with nature.

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The reports of men such as Weston A. Price, Sir Albert Howard, and Dr. G.T. Wrench that traveled the world studying people and their relationship to nutrition and disease, bring out three points with regard to healthy people (35 p. 24-5):

- a) These communities lived arduously and frugally under exacting and sometimes harsh conditions, yet they suffered from none of the physical and nervous disorders now so rife among “civilized” communities. The minimal food resources they had seems to have resulted in a considerably higher plane of nutrition and health than we have with our multitude of food resources.
- b) They represented the widest variety of race, climatic environment, topographical environment, and diet, the latter ranging from lacto-vegetarian to almost wholly carnivorous.
- c) The one thing they all had in common was the unsophisticated nature of their foods and the fact that they consumed those whole, without discarding any edible portions.

Lady Eve Balfour, founder of the British Soil Association, farmer, lifetime student of nutrition, Director of the longest ever run experiment comparing conventional and organic farming methods, and surely the person responsible for Great Britain’s “organic movement,” had these comments to say regarding the healthiest people in the world:

The only discernible common factor, other than good air, seems to be that the diets of all these groups are ‘whole’ diets in the full sense of the word. That is to say:

- a) Every edible part contained in the diet is consumed.
- b) In every case the foods are grown by a system of returning all the wastes of the entire community to the soil in which they are produced. For the sea too is a ‘soil’ in this sense, supporting its teeming population by means of the rule of return – the everlasting cycle of life and decay.
- c) All the foods are natural unprocessed foods.
- d) The diets start before life begins; the parent is as healthy as the child.

There is a complete and continuous transference of health from a fertile soil, through plant and/or animal to man, and back to the soil again. The whole carcass, the whole grain, the whole fruit or vegetable, these things fresh from their source, and that source a fertile soil. Herein appears to lie the secret.

In closing, I beg for your support! We must turn away from conventional farming and the extraneous use of processed foods and chemicals, and move back towards farming in concert with nature. If you cannot trust your instincts, use conscious

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judgment for the betterment of yourself, and if not for yourself, at least do it for your family and/or humanity. If you cannot find the discipline or love to use your consciousness, your purchasing dollar and your vote to help us all bring Mother Nature back onto balance, then you will have chosen an inevitable outcome which leads to our eventual demise!

THE END?

REFERENCES

1. Bunyard, P. "Feeling Stuffed?". The Ecologist. Vol 31, No. 5, June 2001: 34-35.
2. Bahouth, P. "A Recipe For The Tomato Of The Future?". The Ecologist Report. June 2001: 45.
3. Pennington, J.A.T. Food Values (15th Ed.) New York, NY: Harper-Perennial, 1989.
4. Bunyard, P. "Should we pay farmers to sequester carbon in their soils?". The Ecologist Report. November, 2001: 30.
5. Dadd, D.L. The Nontoxic Home & Office (p. 43-45). Los Angeles, CA: Jeremy P. Tarcher, Inc., 1992.
6. Organic Food. Online. Internet. www.hypermesism.org/organic_food. (p. 7), 2001.
7. PANNA. Government Agencies Failing to Cut U.S. Pesticide Use. Online. Internet. www.panna.org/index. October 9, 2001.
8. Beasley, Joseph, M.D. and Swift, Jerry, M.A. (1989). The Kellogg Report: The Impact of Nutrition, Environment & Lifestyle on the Health of Americans. New York, NY: The Bard College Center, 1989.
9. "Organic Farming, Food Quality and Human Health: A review of the evidence". UK: The Soil Association. Online. Internet. www.soilassociation.org. 2001.
10. Sykes, F. Food, Farming and the Future. London: Faber and Faber, undated, published during 1950's.
11. Tompkins, P. (1973). The Secret Life of Plants. New York, NY: Harper & Row, 1973.
12. Balfour, E.B. The Living Soil. London: Faber and Faber, 1943.
13. Holden, P. "Howard's Way". The Ecologist. Vol 31 No. 5, June, 2001.

Under the Veil of Deception

14. Howard, A. An Agricultural Testament, (Seventh Impression). Malaysia: The Other India Press, Goa in association with Earthcare Books, Bombay and Third World Network, 1956.
15. Picton, L.J. Thoughts On Feeding. London: Faber and Faber, 1946.
16. Sykes, F. Modern Humus Farming. Emmaus, PA: Rodale Books, Inc. 1956.
17. Hartmann, T. The Last Hours of Ancient Sunlight. New York, NY: Random House, 1999.
18. King, F.H. Farmers of Forty Centuries Or Permanent Agriculture In China, Korea and Japan. Emmaus, PA: Organic Gardening Press, 1926.
19. Edwards, R. "Many Nappy Returns". The Ecologist. Online. Internet. www.theecologist.org. March 22, 2001.
20. Metcalfe, E. "The World is Running Out of Water." The Ecologist. Online. Internet. www.theecologist.org. June 22, 2000.
21. "What is the Problem?" Surfers Against Sewage. Online. Internet. www.sas.org.uk/index. 2001.
22. "Soil - The Importance Of A Living Soil". Briefing Paper, British Soil Association. Online. Internet. www.soilassociation.org. 2001.
23. Organic Farming and the Environment . Briefing Paper, British Soil Association. Online. Internet. www.soilassociation.org. 2001.
24. British Soil Association. (2001). Living Earth Magazine. No. 212, Oct/Dec 2001.
25. Whyte, R.O. & Jacks, G.V. The Rape Of The Earth; A World Survey of Soil Erosion. London, Faber and Faber LTD., 1939.
26. Purdey, M. The (Vegan Ecological) Wasteland. Price-Pottenger Nutrition Foundation Health Journal, Vol 22, No 4. www.price-pottenger.com.
27. York, Alan. The Nuts and Bolts of Biodynamics, interview. Acres USA. Online. Internet. www.biodynamics.com/acres. April, 1997.
28. Farmer, Robert. Personal communication at the Tierra Miguel Foundation Farm in Valley Center, California. December, 2001.
29. Whicher, O. The Heart Of The Matter: Discovering the Laws Of Living Organisms. London, Temple Lodge, 1997.

30. Pollan, M. "Behind the Organic-Industrial Complex". New York Times. May 13, 2001. www.nytimes.com.
31. Stitt, P.A. Beating The Food Giants. Manitowoc, WI: Natural Press, 1993.
32. Halandane, J.S. The Sciences and Philosophy. Hodder and Stoughton, 1928.
33. Herbert H. Koepf Ph.D. Research In Biodynamic agriculture: Methods and Results. Bio-Dynamic Farming and Gardening Association Inc. U.S.A, 1993.
34. Sally Fallon with Mary G. Enig, Ph.D. Nourishing Traditions: The Cookbook that Challenges Politically Correct Nutrition and the Diet Dictocrats (2nd Ed.). New Trends Publishing, Inc., 1999.
35. Jenks, Jorian. The Stuff We're Made Of. New York, NY: The Devan-Adair Co. 1959.
36. Virginia Worthington MS, ScD, CNS. "Nutrition and Biodynamics: Evidence for the Nutritional Superiority of Organic Crops". Biodynamics. July/August: 224, 1999.
37. Balfour, E.B. The Living Soil and the Haughley Experiment. London: Faber and Faber, 1975.
38. "SAD Truth of American Diet, Part I – What we are eating may be killing us!" Young Living Essential News. October, 2001.
39. Shukla, V.K.S. "Organic Foods: present and future developments". Inform. Vol. 12. May, 2001.
40. Price, Weston A. Nutrition and Physical Degeneration. San Diego, CA: Price-Pottenger Foundation, 1939. www.price-pottenger.com.
41. Adrienne Clarke, Helen Porter, Helen Quested and Pat Thomas. Living Organic. Naperville, IL: SourceBooks, Inc., 2001.
42. Westlake, Aubery. The Pattern of Health. Vincent-Stuart Publishers, 1961.
43. Hunt. Valerie V. The Human Energy Field & Health. Malibu Publishing Co., videocassette. www.malibupublishing.com
44. The American Illustrated Medical Dictionary. Dorland 21st Ed. WB Saunders Co. 1944.

Under the Veil of Deception

45. Lonegren, Sig. The Pendulum Kit. New York, NY: Simon and Schuster, 1990.
46. Emoto, Masaru. The Message From Water. Naperville, IL: SourceBooks, Inc., (date unavailable).
47. Hunt, Valerie V. Infinite Mind. Malibu, CA: Malibu Publishing Co. 1996.
48. Bruyere, Rosalyn L. Wheels of Light – Chakras, Auras, and the Healing Energy of the Body. Fireside, NY, 1995.
49. Gerber, Richard M.D. Vibrational Medicine. Santa Fe, NM: Bear and Co. Sante Fe, 1996.
50. Master Choa Kok Sui. Advanced Pranic Healing. Chino, CA: Institute for Inner Studies Publishing, 2000.
51. Lorus and Margery Milne. (1963). The Senses Of Animals and Men. Andre Deutsch Limited, London.
52. Richardson, Irwin D. Diet and Disease. Akron, OH: The ME-NA Vita Company, 1932.
53. Vagn Gundersen, Iben Ellegaard Bechmann, Annette Behrens, and Stefan Sturup. “Comparative Investigation of Concentrations of Major and Trace Elements in Organic and Conventional Danish Agriculture Crops. 1. Onions (*allium cepa* Hysam) and Peas (*Pisum sativum* Ping Pong).” J. Agric. Food Chem. 2000, Vol. 48:6094-6102.
54. Pottenger, F.M. Jr., MD. “Feeding Experiment on Cats.” American Journal of Orthodontics and Oral Surgery. XXXII, 8, August, 1946.
55. Pottenger, F.M. Jr., M.D. Pottenger’s Cats – A Study In Nutrition. San Diego, CA: Price-Pottenger Foundation, 1983, 1995.
56. Barrett, Stephen M.D. “Organic Foods: Will Certification Protect Consumers?” Online. Internet. www.quackwatch.com. 2001
57. Elliott, Iain. “Pulling a Fast One”. The Ecologist. Vol. 31 No. 5, June, 2001.
58. Kingsnorth, Paul. “Mother’s Milk”. The Ecologist. Vol 31 No. 5, June, 2001.
59. Montague, Peter. “Corporate Rights vs Human Need”. Rachel’s Environment and Health Weekly. Online. Internet. www.rachel.org/bulletin/index.cfm?St=4. November 18, 1999.

Under the Veil of Deception

60. Watkinson, J.H. "Influence Of Soil Se On The Se Level In Human Blood In New Zealand". Soil and Field Research Organization, Ruakara Agricultural Research Center, Hamilton, New Zealand, August 24-26, 1977. Excerpt Published as "Trace Elements in Human and Animal Health and Disease in New Zealand", Waikato University Press, Hamilton, 1977.
61. Trotter, Brown. "The Rape of our Heritage". The Timaru Herald. Timaru, New Zealand, August, 1977.
62. National Research Council/National Academy of Sciences. "Pesticides in the Diets of Infants and Children". National Academy Press. Washington, DC, 1993.
63. White, Alison. "Children, Pesticides and Cancer". The Ecologist. Vol. 28, No. 2, March/April, 1998.
64. Mendelson, Joseph. "Court In The Act". The Ecologist. www.theecologist.org. September 4, 2000.
65. "GM-FREE, Organics Under Fire". Online. Internet. www.btinternet.com/~clairejr/Organic/organic3. 2001.
66. "New Report Shows: Our Food is Killing Us". The Ecologist. October 26, 2001.
67. "Persistent pesticide problems". www.which.net/whatsnew/pr/sep01/which/pesticide. September 6, 2001.
68. Walker, Martin J. "Home Sickness". The Ecologist. March 22, 2001.
69. "Pesticide Exposure Increases Miscarriage Risk". Epidemiology. www.chemtox.com/pesticides/#miscarriage. March, 2001.
70. "News In Brief ...Is Still As Biased As Ever". The Ecologist. Vol 30 No. 7: 9 October, 2000.
71. Time Frame – The Human Dawn. The Editors of Time-Life Books, 1990.
72. Fallon, Sally and Enig, Mary G. PhD. "Guts and Grease: The Diet of the Native Americans". Wise Traditions. Vol. 2 No. 1, Spring 2001.
73. Stefansson, Vilhjalmur. The Fat Of The Land. New York, NY: MacMillian Co., 1960.
74. Crowe, Ivan. The Quest For Food; Its Role in Human Evolution and Migration. Great Britain: Tempus Publishing, 2000.

Under the Veil of Deception

75. Cordain, Loren. "Cereal Grains: Humanity's Double-Edged Sword". In: Simopoulos A.P. (ed): *Evolutionary Aspects of Nutrition and Health, Diet, Exercise, Genetics and Chronic Disease*. World Rev Nutr Diet. Basel, Karger, 1999, Vol. 84: 19-73.
76. Brostoff, Jonathan M.D. and Gamlin, Linda. Food Allergies and Food Intolerance. Rochester, VT: Healing Arts Press, 2000.
77. Goldsmith, Edward. "Hell On Earth". The Ecologist. Vol. 30 No. 7, October, 2000.
78. Salatin, Joel. "Over-Regulation and Small Farms". Comment before the Virginia Senate Subcommittee Hearings July 29, 1997. Weston A. Price Foundation. Online. Internet. www.westonaprice.org/farming/small_farms.
79. Gorelick, Steven. "Facing The Farm Crisis: Farming at Peril". The Ecologist. May 22, 2000.
80. The Ecologist. P. 11. Online. Internet. www.theecologist.org. October, 2000.
81. Foster, John MD. "Crucifers and Cancer". Weston A. Price Foundation Online. Internet. www.westonaprice.org/women/natural_protection.
82. "Is obesity an inflammatory condition?" U.N. Das Nutrition. November 17, 2001, (11-12): 953-966.
83. Schlosser, Eric. Fast Food Nation. Boston: Houghton Mifflin Co., 2001.
84. Parmet, Sherry. "Junk Food Law Digestible". San Diego Union Tribune.
85. Study on Overweight Kids. JAMA Dec. 12, 2001.
86. Critser, Greg. "A Get Fit Plan for Physical Education". Los Angeles Times. Sunday, December 16, 2001.
87. "Soft Drinks Add to Childhood Obesity". Alternative Medicine News Letter. February 16, 2001. www.healthmall.com
88. "High-glycemic Index foods, hunger and obesity: is there a connection?" Nutrition Reviews. Vol. 58, No. 6.
89. "US Drug Sales Up 15% Last Year". Reuters. Online. Internet. www.mercola.com. June 2, 2001.
90. "Prescription Drugs and Mass Media Advertising 1999-2000". National Institute for Health Care Management Foundation.

Under the Veil of Deception

91. Getoff, David ND, Certified Nutritionist. Personal Communication: C.H.E.K Certification Level IV Training in Encinitas, CA, 2001.
92. "Orcas at risk from PCBs". The Ecologist. Vol. 31 No. 9, November 2001.
93. "The Case For More Sewage". The Ecologist. Vol. 31 No. 10, Dec. 2001- Jan. 2002.
94. Hoza Farlow, Christine D.C. Healthy Eating. Escondido, CA: KISS For Health Publishing, 1997. kiss4health@netscape.net.
95. Binney, Gard. "Reviews - Toxic Deception". The Ecologist. Vol. 30 No. 8, November 2000.
96. Hoza Forlow, Christine D.C. Food Additives. A Shopper's Guide To What's Safe & What's Not. Escondido, CA: KISS For Health Publishing, 2001 revised edition. kiss4health@netscape.net.
97. Blaylock, Russell L. M.D. Excitotoxins; The Taste That Kills. Santa Fe, NM: Health Press, 1997.
98. Janet Raloff. "Drugged Waters". Science News Online. Online. Internet. www.sciencenews.org/sn_arc98/3_21_98/bob1. March 21, 1998.
99. "Chemicals in the European Environment: Low Doses, High Stakes?". The EPA and UNEP Annual Message 2 on the State of Europe's Environment. Online. Internet. www.eea.eu.int. 2001.
100. "Lindane and Breast Cancer – Why take risks?" Policy Paper, The British Soil Association. Online. Internet. www.soilassociation.org. 2001.
101. Lodovic, M. et al. "Effect of a mixture of 15 commonly used pesticides on DA levels of 8-hydroxyguanosine and xenobiotic metabolizing enzymes in rat liver". Journal of Environmental Path. Tox. & Onc. 13:3 pp 163-168.
102. Hughes, Solomon. "In Health and In Sickness". The Ecologist. Vol. 31 No. 8, October, 2001.
103. "Project Censored – The Most Underexposed News In America". Nexus. June-July, 2001.
104. Rivera, Rudy M.D. and Deutsch, Roger. Your Hidden Food Allergies Are Making You Fat. Prima Health, 1998.
105. Silverstein, Ken. "Prozac.org - An influential mental health nonprofit finds its 'grassroots' watered by pharmaceutical millions by November/

Under the Veil of Deception

- December 1999. Mother Jones. Online. Internet. www.motherjones.com/mother_jones/ND99/nami. 2001.
106. Ausubel, Kenny. "Hoxsey: How Healing Becomes A Crime". Acres USA. Austin, TX. www.acresusa.com. 2001.
 107. Rivlin, Michael A. "Northern Exposure". Onearth. (formerly the Amicus Journal) Fall, 2001. onearth@nrhc.org.
 108. Cockburn, T. Aidan. "Infectious Diseases in Ancient Populations". Landy, D. Culture, Disease, and Healing – Studies in Medical Anthropology. New York, NY: Macmillan Publishing Co., 1977.
 109. Saxon, Edgar. Sensible Food For All in Britain and the Temperate Zones. Great Britain: C.W. Daniel Co. Ltd., 1939.
 110. Pooley, Richard M.D. "Characteristics of a Traditional Diet". Broda O. Barnes, M.D. Research Foundation Inc., audio cassette.
 111. Wrench, G.T. M.D. (1938). The Wheel Of Health; a study of a very sturdy people. C.W. Daniel Company, Ltd. Ashingdon, Rochford, Essex, Great Britain.
 112. Gerson, M. (1958). Cancer Therapy: Results of Fifty Cases. Del Mar, CA: Totality Books, 1958.
 113. "Organic Food In Cancer Therapy". B. Bishop Nutrition and Health. Vol. 6 No. 2 p. 105-109, 1988.
 114. Bircher-Benner, M. The Prevention of Incurable Diseases. New Canaan, Ct: Keats Publishing Inc., 1978.
 115. Plaskett, L.G. "Nutritional Therapy to the Aid of Cancer Patients". International Journal of Alternative and Complementary Medicine. December, 1999.
 116. Plaskett, L.G. Clinical application of a nutritional cancer therapy with prescribed diet and nutrients. Surrey, UK: The Nutritional Cancer Therapy Trust, 2000.
 117. Williamson, Scott M.D. and Pearse, I.H. M.D. Eds. Biologists In Search Of Material; An Interim Report on the Work of The Pioneer Health Center Peckham. London: Faber and Faber Limited, 1947.
 118. Anderson, Arden Ph.D., D.O. Soils and Agronomy. Acres USA: Video correspondence course. 1998.

Under the Veil of Deception

119. Jensen, Bernard. Dr. Jensen's Guide To Better Bowel Care. New York, NY: Avery Publishing Group, 1999.
120. Hamilton, Gary. "Why We Need Germs". The Ecologist Report. June, 2001: 46-54.
121. Strachan, D.P. "Hay Fever, Hygiene, and Household size". British Medical Journal. 299:1259-60.
122. Halweil, Brian. The Worldwatch Report: Sperm counts are dropping. Monday, February 22, 1999. Online. Internet. www.enn.com/enn-features-archive/1999/02/022299/sperm_1733.asp. 1999.
123. Cordain, Loren. The Paleo Diet. 2001. John Wiley and Sons.
124. The Other Side of the Fence by William A. Albrecht. Prod. Acres USA, Videocassette. Acres USA. 1996.
125. O'Brien, T. "Factory Farming and Human Health", Compassion in World Farming, 1997.

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