

The Root of Good Nutrition

Dr. Arden Andersen

Can We Restore Real Nutritional Content to Our Food?

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One doesn't find too many individuals like Dr. Arden Andersen. Not only is he an accomplished physician, but he is also a world leader in the field of sustainable agriculture. He knows better than anyone that many of the health issues he is routinely seeing in his practice begin way down in the soil in which our food is grown. And in both cases, he is extremely well versed in what to do.

Not surprisingly, Dr. Andersen maintains the viewpoint that all life is connected, and that something done to one aspect of life can affect all others.

"Life forms are all interdependent," he told *Organic Connections*. "Microorganisms in soil determine how a crop is going to grow, which then determines how we're going to grow with the nutrition from that crop. At the same time, how we farm and manage the plant has to do with what goes on with the rain forest and what goes on with the oceans. It's all connected."

One might ask how a medical doctor became an agricultural expert? The answer explains how Dr. Andersen arrived where he is today.

"Actually, it's the other way around," Dr. Andersen said. "I grew up on a dairy farm in Michigan, with a father and grandfather who were quite alternatively open-minded relative to raising crops and taking care of cattle and those kinds of things. Over time, we started having more and more problems on the farm with resistant weeds, resistant insects—things like that—and we would always deal with them from an alternative, or natural perspective."

It follows that Dr. Andersen obtained his first degree in agricultural science, from the University of Arizona, and embarked on a career of consulting in alternative agriculture, studying and advising farmers on how crop and animal health correlates to soil health.

But it didn't stop there.

"I consulted for about ten years," continued Dr. Andersen. "During that time, I always recognized the connection between soil health, the crops that are raised on that soil, and human health, because we always knew that animal health was very correlated to soil health."

"Finally, friends asked me, 'Why don't you go to medical school?' So, I did. I understood that what I was going to do when I got out was not conventional medicine—it was going to be a correlation between what's going on at the farm, and what happens with people, as far as my medical practice is concerned."

Why Isn't Our Food Nutritious?

Dr. Andersen points out that there are thousands of articles correlating nutrition—meaning diet—with human health. In fact, one website—www.vitasearch.com—has a weekly listing of

current scientific abstracts on and around this very subject. Plenty of literature exists supporting the fact that many of humankind's major maladies, such as cancer, heart disease, diabetes and others, are related to nutrition.

But anyone following this information has to take a further step back, for where does that nutrition come from? Nutritionists will reply that it comes from a balanced diet—but that "balanced diet" is composed of food.

According to Dr. Andersen's research, the nutrient content of foods today compared to half a century ago ranges from 15 to 75 percent less. Unfortunately, this decline includes foods labeled *organic*.

"The fact of the matter is," he said, "that the food itself today is significantly deficient in nutrient density due to the poor nutritional practices of the farmers that grow

the food, including much of the 'certified organic' food."

Why has there been such a decline?

Dr. Andersen provides the answer: "When we look back, we see that agriculture has really dropped the ball relative to nutrition in the soil, and then obviously, getting that nutrition into the plant, which is into the food that we eat. Ultimately, in order to change human health, we have to go back and change the soil, because that's where it comes from. And that's really where preventative medicine begins—right in the soil."

What exactly is wrong with the soil?

It began as far back as the 1930s, when an increasing number of farmers started using purified fertilizers—straight nitrogen, straight phosphorus and straight potash—known today as the "NPK model." Other nutrients were neglected—nutrients essential to plant as well as human health—as they didn't appear to be needed in order to grow bountiful crops. Since the original broader number of nutrients was never replenished, over time they disappeared, and today they are long gone.

But as it turns out, the solutions implemented were not only for the sake of farmer convenience. Dr. Andersen shed more light on this: "I think farming methods devolved mainly because of the drive by industry, particularly from World War II on. During World War I, we started developing nitrates for bomb making—for explosives. But in World War II, that production really went into high gear. When the war was over, concerned interests wondered how this production could continue—and they decided agriculture would be a great market."

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“Using a chemical like nitrogen in agriculture, you get crop growth by volume,” explained Dr. Andersen. “The problem is that the crops are not fit to eat. There’s no nutrition there to speak of, and that’s part of how we have degraded our food.”

However, there was a further business motivation for pushing nitrates on farmers.

“Nitrates are very conducive to pathogens, or harmful organisms,” Dr. Andersen continued. “So, as well, the same companies that have promoted the use of nitrogen are also manufacturing the pesticides to kill the organisms that are now going to be promoted by that fertilizer. So, it’s a great business plan. And that’s exactly what it has been. It has not been science at all; it’s all about business.”

Whatever the motivations, the net effect is soil that is non-nutritious, resulting in nutrient-devoid crops that are disease ridden, and require heavier and heavier doses of pesticides and herbicides. Interestingly, it all comes down to the environment created within the soil—and therein lies the key to salvation of crops and farming everywhere.

“The thing that we have to understand is that every organism is dependent upon its environment,” Dr. Andersen told OC. “As we change the environment, we change which organisms will survive or perish. As we change the nutrition in the soil, and the dynamics of what’s going on in the soil, we can set up the appropriate environment for the beneficial micro-organisms to survive, not the disease organisms. They do not like the same environment, particularly as it deals with oxygen. It’s a question of an anaerobic [oxygen-deprived] environment versus an aerobic [oxygen-rich] environment. The beneficial organisms are dominantly aerobic organisms. Our pathogens, or harmful organisms, are dominantly anaerobic-loving.

“The environments that conventional agriculture has set up are predominantly anaerobic environments, so they’re most conducive to disease organisms.”

Solving the Soil Crisis

So what can be done?

It is this question that Dr. Andersen strives to answer in detail through his many agricultural classes the world over. As one might guess, it begins with soil management.

“We need to change that soil to become more aerobic, so it is not conducive to disease organisms, but is conducive to beneficial organisms,” he said. “So it’s all about management.”

Dr. Andersen’s method—called Biological Farm Management—is not an overnight process, and it must be done farm by farm to be truly successful. Dr. Andersen pointed out that it is a three- to five-year program as a rule, and it begins as he would begin with a patient in his medical practice.

“We go back to some basic things of learning how to do a history and physical exam, because 90 percent of everything that really is going to go on has to do with history and physical exam. We have to learn to read the deficiencies in that soil. If we understand really how to read them—we go out and walk the field, doing various precision instrument readings—all of those

things tell us what’s actually going on with that plant, with that soil, and so on. When we accumulate those readings, they tell us what needs to be done nutrient-wise in order to change that environment.”

How are beneficial changes introduced once the “history and physical exam” have been done?

We see yields on these crops far above the norm on a consistent basis—that conventional farmers only wish for. This is even true in drought years, flood years, cold years, and hot years.

To start with, calcium is added, since it is one of the most deficient nutrients in soil. As well, all trace minerals need to go in—not just the 15 or 16 minerals conventional agriculture says are required, but the full 60 to 80 nutrients. Carbohydrates must be added back

into to get a positive carbon load; crops today have a negative carbon load, and actually release significant CO₂ into the atmosphere as a result. These and other necessary nutrients are added through humic acids, fulvic acid, molasses or sugar, fish, seaweed, and many others, as needed.

“We’re really dealing with a living digestive system, and we have to treat it like a living digestive system,” Dr. Andersen said.

The Result

As one might expect, from nutrient-rich soil come crops that are many times more nutritious. What may surprise farmers, though, is the fact that yield is also significantly affected.

“We see yields on these crops that are far above the norm on a consistent basis—that conventional farmers only wish for,” Dr. Andersen reported. “This is even true in drought years, flood years, cold years, and hot years.”

And because they’re not being promoted by soils depleted of nutrients, pests are greatly reduced without the use of chemical pesticides and herbicides.

“We don’t have the disease, weed and insect problems that the conventional guys are just pulling their hair out over,” stated Dr. Andersen.

In ever growing numbers, farmers are noticing that problems with conventional farming are only getting worse—and many of these agriculturists are arriving at Dr. Andersen’s classes.

“The better farmers recognize that herbicides are not working well, and we’re getting more and more resistant strains,” he said. “Look at Roundup [best-selling herbicide], for example, the quantity of active ingredients that farmers are having to use today as compared to 20 years ago is something like three times the amount on a per-acre basis, and we’re still getting all kinds of resistant weeds. So those farmers are looking at that and they’re saying, ‘Hey, this is not going to work long term. We have to

have an alternative; we have to have other answers.”

The bottom line?

“Mr. and Mrs. Consumer, *we have the technology* to grow more nutritious, bountiful, better tasting crops, without toxic poisons to pollute our foods and environment, at a better profit per acre, than conventional agriculture,” Dr. Andersen concluded. “It’s being done, and is expanding as farmers learn of the technology, and consumers demand better food and fiber products.”

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