


THE WESTON A. PRICE FOUNDATION®

 for **Wise Traditions**
IN FOOD, FARMING AND THE HEALING ARTS
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Wise Traditions

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Volume 14 Number 3

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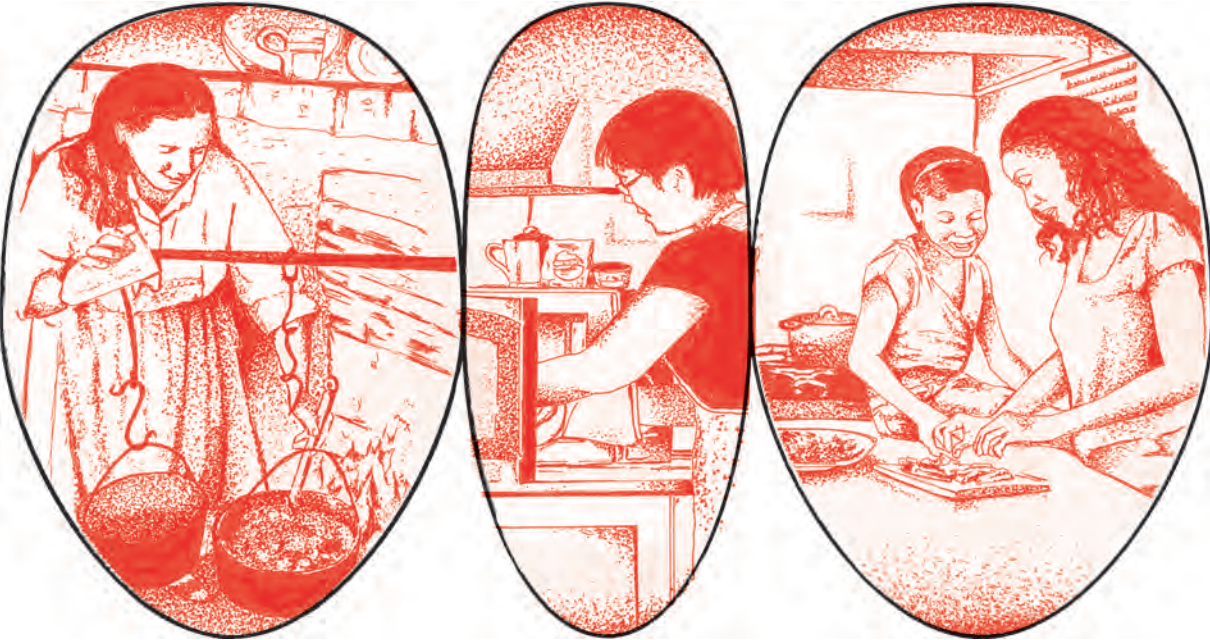
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Volume 14 Number 3 Fall 2013



Genetically Engineered Food: Worse Than We Thought
Herbicide RoundUp: Ubiquitous Danger
Culinary Traditions in Romania Battle for Backyard Chickens

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TECHNOLOGY AS SERVANT SCIENCE AS COUNSELOR KNOWLEDGE AS GUIDE

SOY ALERT!
TRUTH IN LABELING
NON-TOXIC FARMING
PREPARED PARENTING
NURTURING THERAPIES



Wise Traditions



IN FOOD, FARMING AND THE HEALING ARTS

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Volume 14 Number 3

Fall 2013

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President's Message

Although WAPF has occasionally commented on the folly of genetically engineered organisms (GMOs), we have not put this issue front and center. One reason is that our dietary guidelines mostly avoid foods containing GMOs—our members don't use industrial seed oils (canola, corn, soy), don't eat commercial corn products like chips (unless organic), and they avoid soy foods. Also, the health dangers of GMOs have not been apparent. . . . until now.

We are pleased to present in this issue the latest science on GMOs, and the new information should galvanize everyone to completely avoid GMO foods and work hard for mandatory labeling. Digestive disorders, behavioral problems like autism, infertility and cancer are some of the side effects emerging in the scientific literature. Children are particularly vulnerable to these effects.

Even if you are avoiding genetically engineered foods yourself, many of our loved ones still consume them, so we all need to work together to get GMOs out of the food supply. Soon we can expect to see GMO apples and oranges in the market place; GMO sweet corn is already in the supermarket. So mandatory labeling is a must.

Meanwhile, do your best to buy organic and support local growers who are using traditional seeds.

Add to that the dangers of RoundUp, the herbicide used with most GMO crops, which disrupts sulfur pathways leading to numerous adverse health effects. RoundUp persists in the soil and in our food, and is found even in foods that are not genetically engineered, such as wheat. RoundUp is often applied to wheat before harvesting as a desiccant.

Please read carefully the excellent articles by Jeffrey Smith (page 18) and Stephanie Seneff, PhD (page 30).

Our annual conference is fast approaching and we are looking forward to our best ever, with many new speakers along with new talks by favorite speakers from past conferences. See page 15 for conference information and a registration form.

We are particularly happy with the chef at the Sheraton Atlanta and look forward to delicious WAPF-friendly meals.

We expect to be sold out (exhibit space is already almost completely taken) so don't delay!

Letters

PALEO COMMENTS

I was offended and turned off by Sally Fallon's recent editorial discussing the paleo diet. Her description of the paleo diet is inexcusably inaccurate. I became a member of WAPF because of encouragement by many leaders within the paleo movement. And I'm quite sure that I'm not the only one! WAPF has benefited greatly from all the exposure the paleo movement has given them and I'm hoping that there will be a public apology from WAPF.

I don't understand why Sally Fallon wants to create divisiveness between the communities, but it's apparent that she does. Instead of picking on a sister movement that also represents a nutrient-dense, whole food diet, isn't there enough work to be done with the vast majority that follow a standard American diet? It is irresponsible for the leader of WAPF, a public figure that many people look up to, to make such statements about the paleo diet without first doing her research. Anyone can get on the Internet, do a little research, and quickly come to the conclusion that the modern paleo movement (not Loren Cordain's "paleo") is different from how Sally described it.

The most offensive part of the editorial are her comments about feeding children a paleo diet. First, how

dare Sally judge people for feeding their children a healthy, balanced, and nutrient-dense diet. Second, I just don't get her point—I never feel deprived on a paleo diet and I'm sure that children that follow paleo don't either. For many people (adults and children) on a paleo diet, there are good reasons that they are excluding the whole milk, sourdough bread and baked beans. With WAPF, you are still saying "No, you can't" to the standard American diet. It is all in how you frame the choices available.

Overall, this is very disappointing. I frequently refer clients to your website and encourage them to become members. If there is no acknowledgment from other leaders in the organization about this misstep, I won't be renewing my membership next year and I won't be referencing your organization as a resource.

Name withheld

If someone new to the paleo diet does an Internet search, the main websites they get first are the Wikipedia entry on the paleo diet, Loren Cordain's website and Robb Wolf's website. All three emphasize lean meat as a distinguishing feature of the paleo diet. The lively debate in the paleo community on this basic premise will not be obvious to someone doing a preliminary Internet

search. It is very dangerous to eat lean meat, especially in the context of a diet that contains little or no carbohydrate. WAPF is concerned that many people are adopting a paleo diet thinking that it follows WAPF recommendations, and we feel that it is our responsibility to point out the differences between the two diets. The blanket recommendation to avoid all dairy, grains, legumes and carbohydrates is also a concern. Of course, if you are intolerant of any of these foods, they are best avoided—the WAPF dietary guidelines allow this flexibility. For a review of Robb Wolf's book, The Paleo Solution, see page 58. For more comments on the paleo diet, read on.

PALEO COMPLAINTS

I am happy to see the subject of the paleo diet brought up. I've done two different years of fairly strict paleo. It didn't work out for me either year and, in fact, I spun out of it both times with horrible cravings for carbs. A similar thing has happened to friends who were admirably strict with the Robb Wolf program.

We now know from epigenetics that genetic change can occur in one generation, so metabolic changes do not have to occur after millions of years, and evolutionary change can be documented in generational increments, so isn't the

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entire premise of the paleo diet obsolete? Or, better said, wrong?

How can you declare foods that are staples for some cultures to be bad for human beings? These paleo-banned staples would include corn (Mexico), beans (Mexico and all over the world), potatoes (Ireland and South America), and grains (almost everywhere).

As recently as a year ago, Wolf would tell you that a paleo diet “works for everyone.” Then he and Chris Kresser admitted that about 30 percent of those who adopt the paleo diet do not do well on it. Now they are marketing a gimmick called the Paleologix Total Transformation Program, with all sorts of charts and meal plans. I fail to see how this will correct the basic shortcomings of the diet.

Also, none of the paleo teachers I’ve followed or talked to exhibit the simplest levels of holistic nutrition and holistic health insight. They have never internalized it, and they lay out some real clinkers when it comes to understanding why natural foods are healthy and processed versions may not be healthy. Plus, they think that only cranks wouldn’t use a microwave! Their take on pastured foods—good if you can afford it—misses the point completely.

Allan Balliett, Fresh and Local CSA
Shepardstown, West Virginia

THE GIFT OF GRAINS

Regarding the debate on the paleo

diet, I would like to share a story with you. I am extremely sensitive to gluten, no doubt because I was introduced to extruded grains as an infant, and also because for a period of my life I consumed a lot of whole wheat bagels without any cream cheese or butter on them. It is difficult to live in this society unable to consume wheat—you have to be so careful in restaurants, always



asking whether something has wheat in it. I have to be a real pill when we eat at friends’ houses. And I just plain miss some wonderful foods that contain wheat.

When I got pregnant, I was determined that my child would not follow in my path and have to live his life with a wheat intolerance. So I followed the WAPF principles, eating lots of butter and other good fats, eating liver, taking cod liver oil and drinking raw milk throughout my pregnancy and breast-

feeding. My son’s first foods were egg yolk and liver; he gets his cod liver oil every day; and he drinks only raw milk. All these foods help build a strong, impervious gut. In addition, I withheld all grains to the age of one and one-half.

I can announce with great joy that my son tolerates all grains—he loves his soaked oatmeal, brown rice cooked in broth and sourdough bread. And there is

no danger if he occasionally eats some improperly prepared wheat, as when we go to a restaurant or he visits friends. So he can live in this world fully enjoying all foods. I don’t always have to say no to him about what he eats.

The interesting thing is that I don’t have to say no about junk food either. He is just not interested in it. Recently he went to a birthday party where they had a horrible cake with icing colored with food dye. He immediately announced, “I don’t like cake.” But a piece

was forced on him. I stood back and watched. He took a couple of bites and then pushed it away, announcing once more, “I don’t like cake.”

Thank you WAPF for providing the dietary guidelines that result in truly healthy children, children who can live fully in the world without being tempted by its excesses.

Susan Gregory
Alameda, California

Letters

PALEO MYTHS

Your remarks on paleo versus an inclusive, nutrient-dense WAPF-based diet were spot on, well analyzed, accurate, honest and much needed. There is this myth out there about what comprises the “real” Mediterranean diet, then there are all these “paleo” myths floating about, and in balance lies the health of our children. Faddishness is bad for children's health. Period. Especially low-grain or no-grain, which may be fine for immuno-compromised adults (or children) who have eaten a Standard American CAFO diet in their early lives, or been prescribed toxic meds, or been near intense pollution, but it is not a remedy that should be applied to someone who is not sick, has generally cooked and eaten foods made of high quality ingredients, and whose system is not wrecked with prior abuses from exactly these types of diets—accompanied of course by the ubiquitous array of supplements touted under the banner of “paleo” (those nasty protein shakes come to mind).

WAPF, on the other hand, has stressed the importance of cooking real food, without supplementation shortcuts. Although I know there are lots of paleo cookbooks out there, I get the impression that the main paleo writers aren't familiar with the basics of cooking and really don't want to be bothered with it.

When you stand for something, you cannot keep changing the underlying precepts, because if you have to do that, you really are not standing up for that something.

I have followed the paleo movement and have noted what used to be

the earlier paleo movement has undergone a subtle but incontrovertible shift into a wiser WAPF-style diet, as it has moved away from unsaturated oils, lean meats and no carbs towards a more balanced, and high quality diet based on real food, food uncontaminated by hormones, antibiotics and destructive processing. Responsible in a big way for bringing about this shift in thinking is the massive amount of educational material posted for free on the WAPF site, and also the evangelical efforts of bloggers such as Dr. Chris Masterjohn, and a couple of doctors in Scandinavia. A lot of the paleo folks discovered the deficiencies in their diet the hard way, via first-hand experimentation on their own bodies, with these very same diets, and consequently amended what now comes to be defined as “new paleo.” So paleo is, in a sense, what you want it to be. Paleo folks of recent years have, in point of fact, come pretty close to the nutrient-dense eating concept of a WAPF diet.

The big difference I see is this: WAPF has espoused a constant way of eating and thinking about health from day one, with steadfastness, without backpedaling and with the resolve that comes from deep knowledge, a lot of digging through abstruse research, with an understanding of the conflicts between food, pharma, healthcare and human health. If folks were truly honest, they would acknowledge this debt to WAPF. I do. I was engaged in an extremely faddish diet until it hurt me so badly I was forced to realize I was doing it all wrong. I then did not quietly change my diet and call my new diet by the same old name. Rather, I acknowledged the

shortcoming in my thinking and moved on. Paleo folks who have adopted WAPF principles should not be calling their diet by the name paleo.

I also especially admire the work of the WAPF local chapters in hooking up individuals to good sources of food, in helping to build a real economy, a viable community and in educating all the stakeholders along the way into seeing how interconnected we all are.

Sushama Gokhale
Larkspur, California

A NEED FOR GRAINS

I was deeply inspired by the myth-buster article from the Summer 2013 issue of *Wise Traditions*. I joined the WAPF many years ago because I fell in love with the simple message of returning to a traditional diet based on whole, real food. I learned how to be a better cook, how to prepare grains, legumes, seeds and nuts properly, the value of grass-based farming, and the importance of fat-soluble nutrients.

I fully understand that many people feel better and live healthier lives on a low-carbohydrate or low-grain diet; however, I was particularly relieved to read your article as I have felt discouraged for quite a while due to the misconception that the WAPF is all about low-carb, high-protein. Over the years, I read books written by WAPF-friendly doctors who wrote about the dangers of grains and the value of low-carb diets. I tried desperately to follow a low-grain diet, a no-grain diet, a full GAPS diet, and a high-protein diet. All had a terrible effect on me. During this time, I became pre-diabetic and was trembling all the time. I suffered from depression, I had

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acid reflux, pains in my legs, and I was awake in the middle of the night with uncontrollable muscle twitching and spasms. I suspected I was hypoglycemic and that my body needed grains to be healthy, but unfortunately I ignored my gut feeling, trusting the “experts” over my own intuition. A couple of doctors told me I needed to cut the carbs even further. One doctor suggested I was having muscle problems due to toxins in my nerves. Another suggested I go on a temporary course of a pharmaceutical drug to lower my blood sugar while following a very low-carb diet! I was at my wits' end!

Thankfully, I met Matt Stone at the WAPF conference in Dallas in November, 2011. It was through him that I understood I had become a near diabetic due to the lack of natural sugars in my diet. It was creating a lot of stress for my body. By adding grains and natural sugars such as raw honey, Rapadura and pure maple syrup to my diet, I was able to heal acid reflux, leg pains, feelings of depression, and my HbA1c (blood sugar measurement) returned to normal.

I realize eating starches and grains is not for everyone! People are very different! Still, it bothered me that some (not all) WAPF members who practice nutrition said that I have an addiction to grains! Or, that I needed to retrain my body to be a fat burner instead of a carb burner! It was the words of Price himself in his letter to his nieces and nephews that helped me get through this whole process:

“The basic foods should be the entire grain such as whole wheat, rye or oats, whole wheat and rye breads, wheat and oat cereals, oat-cake, dairy

products, including milk and cheese, which should be used liberally, and marine foods. All marine or sea foods, both fresh and salt water, are high in minerals and constitute one of the very best foods you could eat. Canned fish such as sardines, tuna or salmon are all excellent; also fresh seafood such as oysters, halibut, haddock, etc. The protein requirement can be provided each day in one egg or a piece of meat equivalent to the bulk of one egg a day. The meals can be amply modified and varied with vegetables, raw and cooked, the best of the cooked vegetables being lentils used as a soup. The cooked vegetables are cauliflower, Brussels sprouts, asparagus tips and celery. Lettuce is the best of the raw vegetables.”

I support all diets based on real, whole foods and I recognize everyone's need for individuality where diet is concerned, yet it's disheartening when some folks dismiss any one food category as bad or unnecessary for all people. I don't think that's what Dr. Price did, and I appreciate the fact that the WAPF is maintaining its focus on a diet that includes as many types of whole foods as possible.

Alana Sugar
Springfield, Virginia

MYCOPLASMAS

I noticed that the conference is about curing the incurable. A little over a year ago, I was diagnosed with severe crippling rheumatoid arthritis and was told that if I didn't do the standard treatment I'd be in a wheelchair in about five years. All second opinions told me the same thing, but I refused to believe it. My condition had come on in only a few

weeks, and I had recently had contact with someone who had lots of pain, swollen joints and both knees replaced, as well as toenail fungus more extreme than I had seen before. It just seemed contagious to me.

I followed the late Dr. Thomas McPherson Brown's protocol of very low doses of tetracycline (bought off Ebay, and the type for aquariums) every other day for about a year, and I am totally back to my old healthy self, farming again. I didn't change my diet since I was already living the WAPF lifestyle.

Dr. Brown's theory is that all arthritis is caused by mycoplasmas inside the cells in our joints and the pain is caused by their toxins. We all accumulate mycoplasmas over our lifetimes and I believe all chronic disease involves them. Mycoplasmas are an evolutionary intracellular parasite. Temporary vegan diets or severe calorie restriction can eliminate symptoms by starving the mycoplasmas of glucose, so that is why so many people have relief with that.

Tetracycline is produced by the streptomyces bacteria, which are naturally found in healthy wooded environments, and maybe should be part of our natural gut and body flora. I have made teas from plants in the woods that taste just like the tetracycline I bought, so maybe there's a connection.

The whole mycoplasma science is just left out of medicine. Our species has mycoplasmas, and the more we feed them, the more they take over our bodies. Even the plaques in arteries are made from micro-organisms like diatoms. It's the terrain, but the terrain either supports micro-organisms that all work together to create a "human" or

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the terrain gets out of balance and taken over by mutinous micro-organisms which can reach a critical mass and communicate with each other, as described by the bacteria whisperer, Bonnie Bassler. Very low doses of tetracycline over a long period of time doesn't kill all the weak bacteria thereby creating super bugs, it just nudges things back into balance so the immune system can function like it should.

Mycoplasmas are very slow growing, unlike our white cells. So, an antibiotic that interferes with protein production actually favors our immune cells over the mycoplasmas that have no cell wall and live inside our cells. Antibiotics that work by interfering with the cell wall selectively inhibit the mycoplasmas over our immune cells.

Laura Livingston, Chapter Leader,
Blue Hill Peninsula,
Brooksville, Maine

SLOW FOOD IN IRELAND

I just returned from a two week trip around Ireland and although I need a fairly strict diet at home to feel well, in Ireland I ate and drank whatever I pleased. The diet is very heavy on the bread and potatoes; I drank beer too, but not too much. I actually lost a couple of pounds! It was probably the miles we walked—over eighty miles in two weeks. I also had no gut issues, no heartburn, no GERD, no digestive woes. This could be from my really good preparatory eating before we went—lots of homemade yogurt, beet kvass, kraut and yogurt whey. We also consume lots of bone stock at home, so our guts were well prepared for the likes of all that soda bread and those luscious scones.

I was thrilled to find the slow food movement has taken hold there and really good chefs are popping up all over. I even got to talk briefly with one. There's a lot of good traditional food there, but alas, a lot of processed junk and loads of sugary things. They do love their sugar, especially in Northern Ireland, which is part of the UK. They also have an obesity rate of over 61 percent among adults and I think it was around 35 percent for children, and they are concerned. They too are proposing better food for their schools. I contacted the Dublin WAPF before I went and they steered me to a couple of good food places for dinner and shopping. Really fresh, local produce is hard to come by, most is imported and has to be. They are having a very cold spring and crop failures of grain.

The WAPF chapter leader told me that raw milk is not illegal, but very difficult to source. Thousands and thousands of happy sheep, cattle and dairy cows can be seen chowing down on all that green Irish grass. Their local artisanal cheeses are really coming into their own. So, it is a myth that is now broken. Yes, they have good food in Ireland, and no, the beer is not warm!

Selena Hoffman
Providence, Rhode Island

RAW MILK IN SPAIN

I have been working very hard during the last few weeks, on my own campaign for educating people about real milk in Spain; people here are still extremely scared of drinking unpasteurized milk and know very little, if anything, about it.

After my first article there has been

an incredible movement which I am ever so happy about. There is only one raw milk producer in Spain. I speak with him on a weekly basis, and not too long ago he was worried about having to close his business due to reduced customers. He is now hopeful about being able to continue with the amazing work that he does. In the week after my first article on raw milk was published he was selling nearly five hundred extra liters of real milk!! Before this, he was not getting out much more than fifty liters per week, if that.

It is certainly a lot of work, but absolutely wonderful and so rewarding being able to support one of the few farmers who is doing things so well in this country. I am also organizing a list of people in different parts of the country who are interested in raw milk orders, so that they can get together and form small consumer groups to make it easier for them to be able to purchase real milk, and also to get to know each other in their cities.

I will be publishing a lot more information on raw milk, as well as teaching people to make their own homemade raw milk yogurts, clabbered milk, cheese, kefir, etc.

Eva Muerde La Manzana
Spain

AGENDA 21

Heike Eubanks missed the whole point of my article about UN Agenda 21 (Spring 2013). UN Agenda 21 is being implemented piecemeal, at the local level by undiscerning cities and counties that have been changing zoning laws to drive people out of rural areas, deliberately forcing people into cities,

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and making things especially difficult for farmers. In places where farmers and ranchers have been driven off their land by these dictates, their constitutional rights have been trampled, and our national sovereignty is threatened by this forty-chapter blueprint for population control. That is why a bipartisan movement has sprung up against it.

I never said Agenda 21 had been ratified by Congress, or signed by the President, but it certainly is no "conspiracy theory" that this collectivist, anti-private property rights agenda is being implemented at the local level in a growing number of cities and counties across America, (and around the world), which are unwittingly influenced through membership in ICLEI, the International Council on Local Environmental Initiatives.

The UN has formally declared both "farming" and "ranching" to be "unsustainable." (See http://www.freedomadvocates.org/articles/sustainable_development/what_is_%22unsustainable%22%3F_2003022414/.) This poses an obvious threat to the future existence of pasture-based farmers and members of the Weston A. Price Foundation, especially as our national sovereignty is continuously eroded in other ways.

This is why a growing number of American cities and counties have been quitting membership in ICLEI; it's the reason the Alabama legislature has formally banned the State from all participation in the implementation of UN Agenda 21

(<http://www.thenewamerican.com/tech/environment/item/11592-alabama-adopts-first-official-state-ban-on-un>

agenda-21).

As the first person in the world to blow the whistle on the UN Codex international threat to health freedom, I am acutely aware of all aspects of international trade, of threats posed by the WTO and other trade agreements, but it is no "theory" that UN Agenda 21 poses a threat to farmers and ranchers. Talk to horse farmer Rene Holaday, author of *The Perils of Sustainable Development*, and ask her about her experience with the state of Washington's Department of Ecology, which almost seized her ranch due to zoning changes caused by UN Agenda 21. See my article on Kimberly Hartke's blog which goes into a lot more depth on the issue of UN Agenda 21 (<http://hartkeisonline.com/2012/12/04/chemtrails-conspiracy-educate-yourself/>).

John Hammell, WAPF Chapter Leader
President, International Advocates
for Health Freedom
Point Roberts, Washington

MY HEALTH BIBLE

I'm writing to thank the Weston Price Foundation for their valuable information. In the past I have read hundreds of books on nutrition and despite keeping religiously to the Heart Foundation guidelines, I had very low energy levels, struggled with gaining weight, always felt hungry, and suffered from bad gum disease. The dentist said I would lose my teeth before long. Knowing these problems had to be diet-related, I started to research diet again with a more open mind and Googled "the benefits of saturated fats." This finally led me to the Weston A. Price Foundation website, and it all made sense to me. Eat

like traditional people eat! It's funny that I had been doing that with my dog and cats for the last five years, feeding them a diet of raw meat and bones, and their health was fabulous. It hadn't occurred to me to do the same for myself.

My energy levels now are awesome, I'm feeling physically satisfied so I don't want to eat quite as much, and my gum disease is a thing of the past. Even my dentist was impressed. I no longer have inflamed, sore and swollen gums. I know my teeth will last me now for the next forty years or more. I feel better than I have in years. And the food tastes better too!

I try to speak to people about my diet and the Weston A. Price Foundation but they look at me like I'm a nutter. They can't get over the notion that saturated fats are bad. People are so indoctrinated with this way of thinking. They won't even be opened-minded about it. I'm a bit careful now how I share, and I just explain that I don't eat processed food. Telling them that saturated fats are fine and healthy seems too much to handle for some. They think I'm heading for heart disease because of the nice wad of butter on my eggs at lunch. Little do they know!

Whenever I want information on health I look it up on the Weston A. Price Foundation website. This is my health bible now. It provides all the information that I need to be healthy. I will remain a member forever.

Michelle Cox
Patumahoe, New Zealand

Letters

IODINE RICHNESS

A Polish gentleman recently brought to me a sampling of traditional Maori kai (food), including some kina (sea urchins) which the Maori I knew down country used to eat even when I was growing up in the seventies. He loves them and dives for them from time to time.

I tasted about a teaspoon of the roe—it was bright orangey yellow and smelled of Lugol's Iodine. Once upon the tongue, it was the most intensely flavored food that I've ever tasted—super rich in iodine obviously evidenced by the color and smell, but oh, so good for you, I would imagine.

According to my Polish friend, the roe can vary enormously in color from area to area—some areas produce deep burgundy roe, others a pale rose color but fortunately what he brought was so orange yellow that the penny dropped showing me how much iodine these people traditionally used to consume. No wonder weight and hormonal issues abound today when we are not getting nutrient-dense food like sea urchin roe!

Caroline Marshall, Chapter Leader
Auckland, South & East, New Zealand

RUBBISH

I grew up on milk straight from the cow, warm and creamy, and was as fit as a fiddle until the age of sixty-six.

But since then the milk has tasted like water. Now at seventy-seven years old, I am full of painful arthritis and other ailments. The terrible rubbish that is now put in our foods is also a contributor to bad health. Younger people are dying today because they did not get good wholesome foods when growing up, and I am a firm believer that it is all

because of greedy companies producing rubbish.

Mrs. J.A. Juliff
United Kingdom

PORK STUDY

I have been following with interest the articles concerning live blood cell analysis in the pork study. I can help your readers understand why the blood clumps following eating improperly prepared pork.

The integrity of the red blood cells is maintained when the red blood cells are coated with anions (negative charge); they begin to clump as the cations increase in solution and neutralize the negative charge on the red blood cells. Pork is highly cationic but most enzymes (as would be found in sauerkraut) are anionic and vinegar is also anionic. Therefore, your sauerkraut and vinegar are protecting the red blood cells from the cationic buildup of the pork.

This job of maintaining the anionic-cationic balance is primarily the role of the kidney, but to accomplish this the person must be well hydrated. Almost all foods are cationic in nature (lemons are a notable exception, being anionic). Pork, shellfish and catfish are highly cationic foods. This is the reason why the Atkins diet did lower cholesterol but was not so good for heart disease because of its high cationic balance, which would cause an increase in blood viscosity. In the laboratory this can easily be measured by putting a probe in urine and measuring the conductivity of the urine; normal is between 5 to 15 millisiemens.

John Kule, MD
Aiken, South Carolina

This interesting letter would explain why we find sour drinks, such as kombucha, wine, or even water with a squeeze of lemon so refreshing with meals.

GEORGE WASHINGTON CARVER

Last summer our family visited Tuskegee, Alabama and toured the George Washington Carver Museum. While in the gift shop I picked up three booklets written by Dr. Carver when he worked with the Tuskegee Institute's Agriculture Experiment Station. I was reading through one from November 1936, which was all about sweet potatoes, their cultivation, uses and recipes.

I came across instructions on how to make compost fertilizers from two loads of leaves and muck (muck is simply the rich earth from the swamp) which are spread out in a pen. One load of barnyard manure is spread over this. Readers were advised to "begin your compost heap now; do not delay; let every spare moment be put in the woods raking up leaves or in the swamps piling up muck." We are told doing this "will pay you many times in the increased yield of crops."

Earlier sections bemoan the "leachy" nature of the soils at the station there in east Alabama, saying that it was prone to washing away. What grabbed my attention was the paragraph detailing the results from using the leaf and muck compost at the Experiment Station: "Three acres of our experimental farm has had no commercial fertilizer put upon it for fifteen years. The land has been continually cropped, but has increased in fertility every year, both physically and chemically, on no other fertilizer than muck compost and the

Letters

proper rotation of crops. This year two hundred fifteen bushels of sweet potatoes were made per acre, with no other fertilizer than the above compost.”

Dr. Carver is well known for finding hundreds of uses for the peanut, but this booklet shows his creativity didn't stop with peanut butter as it contains dozens of creative uses for sweet potatoes, including over forty recipes. One for sweet potato croquettes caught my eye. You'd never see a recipe like this in a modern publication from the USDA Ag Extention Service! It calls for two cups of cooked mashed sweet potato to be combined with two egg yolks, formed into croquettes and rolled in more egg and bread crumbs, then fried “in hot lard to amber color. Serve on napkins.”

Lee Burdett
Altamonte Springs,
Florida

DIET AND JAW SHAPE

I am friends with a woman who chose to assist a young couple, both drug users, who died over the course of a year. The autopsies revealed drug overdoses.

The parents had darling twins—they were age seven months when the mother died and my friend got involved caring for them. My friend was able to provide them with a good Christian home and nourishing Weston A. Price foods, and eventually adopted them. Both girls were cute, but they had terrible teeth and jaws.

Recently, I took them all to our pool—the girls are now five years old,

very sturdy, tall and strong and on the top end of the growth chart, rather than the bottom, and scrawny and sickly, when my friend first got them. They are also very bright, whereas before they were developmentally delayed.

But here is the strange thing. I looked at their mouths and said, “Is it just me, or are the girls’ jaws broader now and their teeth are straight and even?” Yep, as impossible as this



sounds, both girls now look like Weston A. Price babies! My friend has been giving them high-vitamin butter oil and fermented cod liver oil since they were seven months. She began feeding them with egg yolks, raw butter (which they licked from the spoon), liver and raw Jersey milk. When they feel sick they even ask for the “burning” medicine, which is what they call the cod liver oil

Thought I would share this, as there could be hope for babies who did not receive the best of care in utero!

Susan Avery
Parker, Colorado

NATURAL MAGNESIUM

It seems that citric acid is everywhere these days, even in nutritional supplements. I was taking the Natural Calm magnesium powder for many years and recently noticed that citric acid is a non-medical ingredient of this product. Maybe that has something to do with my migraines?

As Jack Samuels wrote in the Summer 2000 issue of your publication, citric acid is everywhere and it is becoming increasingly difficult to stay MSG-free since for many people, citric acid acts just like MSG.

Please advise your readers that they must read the labels on their supplements carefully to avoid this most noxious chemical, which passes the blood-brain barrier. As WAPF has always said, it is best to get one's nutrients from food. In the case of magnesium, I will go back to drinking raw

milk, eating raw kefir and eating Brazil nuts. All of these foods are loaded with magnesium.

Julia Hattori
Toronto, Canada

Gifts and bequests to the
Weston A. Price Foundation
will help ensure the gift of good
health
to future generations.

Caustic Commentary

Sally Fallon Morell takes on the Diet Dictocrats

BREASTFEEDING CHALLENGE

Lactation consultants and midwives report to us that more and more women are having trouble breastfeeding. A new study throws light on one of the reasons. Researchers have found that milk-producing glands become highly sensitive to insulin during lactation, with downstream signals for producing proteins, fats and carbohydrates in the biofactory called the breast. Mothers who have poor glucose metabolism, such as being overweight, older or having a large baby, who are diabetic or pre-diabetic, or have a poor diet in general, may have insulin resistance. The result is that they take longer to begin producing milk, or may have trouble producing enough (www.nlm.nih.gov/medlineplus/news/fullstory_138459.html).

So a diet high in refined carbohydrates may seriously hamper breast milk production. Interestingly, soaked grains seem to enhance breastmilk production.

CHEESE AND TOOTH DECAY

Researchers have found that babies born to women who consume cheese during pregnancy are likely to have better dental health than babies born to non-cheese-consumers. Researchers at the Fukuoka University, University of Tokyo and Osaka City University looked at the long-term effects of prenatal cheese and dairy consumption on an infant's tooth development, tracking three hundred fifteen Japanese mother-and-child pairs, recording prenatal diets and performing dental examinations of children between forty-one and fifty months of age. The study found a strong connection between cheese consumption during pregnancy and decreased risk of childhood dental caries, such as tooth decay and cavities (*Nutrition Journal* 2012 May 17;11:33). Ironically, the results did not seem to be related to calcium intake. "Components of cheese other than calcium might be responsible for the protective effects of maternal cheese

intake against dental caries in children," the researchers said. In fact, cheese is a perfect food for developing strong teeth (and bones) with its content of vitamins A, D and K, along with calcium, phosphorus and other minerals. There was no evident relationship between maternal milk intake and the risk of childhood dental caries, suggesting that cheese from pasteurized milk is a better choice for pregnant moms than pasteurized milk.

LOGLIFE DIETS

Pearl Cantrell, age one hundred five, worked a life of physical labor and raised seven children. She credits her longevity to . . . bacon! "I love bacon, I eat it everyday," says Cantrel. Mean-

while, in Peru, Carmelo Flores Luara, the oldest living person ever documented, turned one hundred twenty-three a month ago. The native lives in a straw-roofed hut with a dirt floor near Lake Titicaca at over thirteen thousand feet. Flores is toothless and has poor vision, but still walks without a cane. Like all the natives living at that height, he chews on coca leaf, a mild stimulant. Flores avoids noodles and rice, but consumes barley and chuno (dehydrated potatoes). The water he drinks originates on a snow-capped mountain peak. For meat, he mostly eats mutton, which means he eats all

parts of the animal as is the custom in Latin America.

BUTTER VINDICATED. . . AGAIN!

Dietary questionnaires do not provide an accurate indication of what people actually eat, so researchers often look at clues in the blood. A just-published study looked for markers of "dairy fat" (that is, butter) in the blood of twenty-eight hundred U.S. adults and correlated the findings with heart disease. Presence of a fifteen-carbon saturated fatty acid (15:0) found in butter had the strongest association with self-



Caustic Commentary

reported whole-fat dairy and butter intake, and was inversely associated with the incidence of cardiovascular disease and coronary heart disease. No association of cardiovascular or heart disease was found with palmitic acid (14:0) and a natural *trans* fat (*trans*-16:1n-7), both prevalent in butter (*J Am Heart Assoc* 2013 Jul 18;2(4):e000092). The finding that palmitic acid is not associated with the prevalence of heart disease is especially interesting because in the absence of dietary saturated fat, the body transforms carbohydrates into saturated palmitic acid. This is given as a reason to avoid grains, potatoes and other starchy foods by paleo dieters, who claim that palmitic acid causes heart disease.

COPPER AND HEART DISEASE

In these pages, we have published articles on the dangers of copper overload; but we shouldn't forget that copper is an essential mineral, especially important for cardiovascular function. In new research involving mice, copper supplements restored normal cardiac function in rodents with enlarged hearts, otherwise known as hypertrophy. Researchers attributed the beneficial effects to increased production of cardiac blood vessels and to improved function of vascular endothelial growth factor, a molecule involved in function of the delicate lining of those blood vessels (*JEM* vol. 204 no. 3 455a). While the research may lead to an increase in use of copper supplements, copper expert Dr. Leslie M. Klevay notes that supplements don't work well. One reason is that copper needs iron for efficient assimilation. Klevay recommends food sources such as grains and nuts, liver and peanut butter.

LOW CHOLESTEROL DANGER IN BABIES

A new genetic study suggests that the most common form of gastrointestinal obstruction in infants might be linked to low cholesterol levels. Infantile hypertrophic pyloric stenosis (IHPS) occurs in one to three per one thousand live births in Western countries and is the leading cause of gastrointestinal obstruction in babies. The condition is considered genetic and is commonly treated with surgery. (*JAMA*, August 21, 2013, Vol 310, No. 7). Researchers measured plasma levels of total, low-density lipoprotein, and HDL cholesterol as well as triglycerides in prospectively collected umbilical cord blood from forty-six IHPS cases and one hundred eighty-nine controls. On average, the total cholesterol level for the cases and controls was 65.2 and 75.2 milligrams per deciliter, respectively. The risk of IHPS was inversely and significantly associated with total cholesterol. No doubt researchers will continue down the path of genetic research, and doctors will perform more surgeries for this tragic condition, but this research suggests that the solution lies in giving better dietary advice to pregnant women. Pregnant women need plenty of cholesterol-rich animal fats and organ meats to prevent IHPS in their offspring, not the lowfat diet that is currently recommended.

MORE DANGERS OF STATIN DRUGS

We recently reported that some statins, such as Lipitor and Zocor, can raise a patient's risk for diabetes by as much as 22 percent (*BMJ* 2013;346:f2610), although the medical establishment continues to insist that the benefits of cholesterol lower-

SHOPPING GUIDE CORRECTIONS

1. New phone number for TruRoots, under Grains and Legumes: 925-218-2205.
2. New phone number for Wills Valley Farm Products, under Lacto-Fermented Vegetables: 717-284-5751.
3. New phone number for Wonderfully Raw under Cookies, Bars and Muffins: 831-786-8773.
4. New phone number for Wise Choice Market under Lacto-Fermentation Starters, Lacto-Fermented Vegetables, Condiments, and Beverages: 541-613-1165.
5. New phone number for Aqua Vitea kombucha under Beverages: 802-453-8590.

For corrections to our Shopping Guide, or to suggest new products, please contact us at shoppingguide@westonaprice.org.

Caustic Commentary

ing outweigh the risks of raising blood sugar. Other dangers continue to emerge. A new study found that women taking cholesterol-lowering drugs for more than ten years doubled their chances of the most common type of breast cancer. The explanation is that statins affect hormone regulation in the body, resulting in more cases of estrogen-dependent breast cancer (*Cancer Epidemiol Biomarkers Prev.* 2013 Aug 21). As there is no benefit from cholesterol-lowering in women whatsoever, it is hard to argue that the benefits of statins outweigh the risks. Another study has found that statin use is associated with a higher risk of multiple organ failure after injury (*Trauma*, September 2009 67(3):476-484)—cholesterol is needed for healing, after all. Finally, when patients on statins are given antibiotics, there is a greater risk of patient hospitalization for muscle breakdown, kidney injury and death (*Ann Intern Med.* 2013;158(12):869-876). What a deal!

DELAYING DELAYED CORD CLAMPING

Pleas to delay cord clamping of neonates began in the early 1970s with the work of obstetrician George Malcolm Morley,

MD, ChB, FACOG, who called for an end to immediate cord clamping, noting that the extra blood from the umbilical cord protects the baby against asphyxiation and also anemia during the first few months. But the medical establishment has been remarkably reluctant to give babies that extra minute or two of cord blood, citing a risk of jaundice. A new analysis makes this recalcitrance indefensible. The research found that newborns with later clamping had higher hemoglobin levels postpartum and were less likely to suffer iron deficiency three to six months after birth compared to babies who had immediate cord clamping. Birth weight was also significantly higher on average in the late clamping group, in part because the babies received more blood from their mothers. Most importantly, delayed clamping did not increase the risk of severe postpartum hemorrhage, blood loss or reduced hemoglobin levels in the mothers. There was a 2 percent increase in jaundice among babies who got delayed cord clamping, a mild inconvenience compared to the long-term neurological benefit. The World Health Organization recommends delayed clamping because it “improves the iron status of the infant,”

RECENT BLOGS BY CHRIS MASTERJOHN

Undercarboxylated Osteocalcin: Marker of Vitamin K Deficiency or Booster of Insulin Signaling and Testosterone? (www.westonaprice.org/blogs/cmsterjohn/2013/07/17/undercarboxylated-osteocalcin-marker-of-vitamin-K-deficiency-or-booster-of-insulin-signaling-and-testosterone/)

In previous articles, Chris has used undercarboxylated osteocalcin as a marker of vitamin K deficiency and suggested that the role of osteocalcin is to organize the mineralized matrix of bone. Research has been accumulating over the past half decade, however, that the true role of osteocalcin is for its undercarboxylated form to boost insulin and testosterone status, leading to increased energy expenditure, leanness, and fertility. In this post, Chris reviews the literature on this topic and concludes that while vitamin K is needed to allow the accumulation of osteocalcin in bone matrix, the process of bone resorption releases the hormonally active form. This makes previous studies on undercarboxylated osteocalcin more difficult to interpret, but the evidence still indicates that most people, especially growing children, need more of this essential fat-soluble activator.

Thyroid Hormone and Vitamin A Protect Against Vitamin D Toxicity in Cows (www.westonaprice.org/blogs/cmsterjohn/2013/04/03/thyroid-hormone-and-vitamin-a-protect-against-vitamin-d-toxicity-in-cows/)

In this post, Chris reviews several studies from the 1960s showing that injections of vitamin D into cows to prevent milk fever proved toxic upon autopsy even at the minimally effective doses. Thyroid hormone and vitamin A, however, both completely eliminated the incidence of soft tissue calcification. These studies suggest that vitamin D can be toxic even at doses that are needed to reverse or prevent disease, and show that it is not the amount of vitamin D per se that determines whether the vitamin is beneficial, toxic, or both, but its interaction with its synergistic partners.

but the American College of Obstetricians and Gynecologists reviewed the evidence used in the new analysis and found it “insufficient to confirm or refute the potential for benefits from delayed umbilical cord clamping in term infants . . .” Fortunately, more mothers are insisting on delayed clamping, and more obstetricians and midwives are coming around. “The implications [of the report] are huge,” says Dr. Eileen Hutton, a midwife who teaches obstetrics at McMaster University in Ontario. “We are talking about depriving babies of 30 to 40 percent of their blood at birth—and just because we’ve learned a practice that’s bad” (*New York Times*, July 10, 2013).

ANEMIA AND PSYCHIATRIC DISORDERS

The subject of delayed cord clamping takes on additional relevance in light of research showing a possible link between iron deficiency anemia (IDA) and psychiatric disorders in children, including the conditions of depression, bipolar, anxiety disorder and autism. Dr. Ya-Mei Bai and her team of researchers looked at data from the Taiwan National Health Insurance Database. They identified nearly three thousand children who had been diagnosed with IDA and compared them to nearly twelve thousand healthy controls matched for age and sex. Kids with iron deficiency had higher prevalence of multiple psychiatric disorders, as well as delayed development and mental retardation. Iron plays a key role in brain development as well as regulation of neurotransmitter systems (*BMC Psychiatry* 2013 Jun 4;13:161). An imbalance of brain chemicals is thought to be the cause of many psychiatric problems.

FLUORIDE REDUCES IQ

For years health experts have been unable to agree on whether fluoride in the drinking water is toxic to the developing human brain. Extremely high levels of fluoride are known to cause neurotoxicity in adults, and negative impacts on memory and learning have been reported in rodent studies, but little is known about the substance’s impact on children’s neurodevelopment. In a meta-analysis, researchers from Harvard School of Public Health (HSPH) and China Medical University in Shenyang for the first time combined twenty-seven studies and found strong indications that fluoride may adversely affect cognitive development in children (*Environ Health Perspect* 2012 October; 120(10): 1362–1368). The average loss was equivalent to seven IQ points. Based on the findings, the authors say that this risk should not be ignored, and that more research on fluoride’s impact on the developing brain is warranted. In a related development, the Supreme Court of Israel ruled an end to fluoridation in Israel, citing health concerns.

FISH OILS NOT SO WISE

Recommended in many diet plans, including the *Paleo Diet Solution*, fish oil is today’s most popular supplement. Made by boiling fish oil at 230 degrees for hours, the omega-3 fatty acids in fish oil can hardly be beneficial, and are most likely completely rancid and likely to cause oxidative damage in the body. (WAPF has never recommended fish oil, only fish *liver* oils, preferably processed at low temperatures.) A new study from the National Cancer Institute showed that those with high concentrations of elongated omega-3s (the kind found in fish oil) in their blood had a 43 percent higher risk of developing cancer than those with the lowest levels (*J Natl Cancer Inst* 2013 Aug 7;105(15):1132-1141). While most of the participants did not take fish oil supplements, the study serves as a warning to avoid them. The recommended dose of fish oil contains 30-60 percent of the marine fatty acids in a serving of fish, and many people take more, and take it every day. In addition, few make a point of eating butter or other saturated fat, which can protect against oxidative damage.

LISTERIA IN PASTEURIZED CHEESE

Whole Foods Market has recalled Crave Brothers Les Frères cheese in response to an outbreak of listeria that has sickened people in several states and resulted in at least one death. The cheese is made from pasteurized milk. The recalled Crave Brothers Les Frères cheese was cut and packaged in clear plastic wrap and sold with Whole Foods Market scale labels. FDA has issued a recall notice dated July 5, 2013 (www.fda.gov/Safety/Recalls/ucm359697.htm) but where is the outcry to avoid that dangerous food item—pasteurized cheese? ☹☹

FOR SCIENTISTS AND LAY READERS

Please note that the mission of the Weston A. Price Foundation is to provide important information about diet and health to both scientists and the lay public. For this reason, some of the articles in *Wise Traditions* are necessarily technical. It is very important for us to describe the science that supports the legitimacy of our dietary principles. In articles aimed at scientists and practitioners, we provide a summary of the main points and also put the most technical information in sidebars. These articles are balanced by others that provide practical advice to our lay readers.



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 Sylvia Onusic, PhD, CNS, LDN, nutrition researcher
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 Mark Schauss, MBA, DB, author of *Achieving Victory Over a Toxic World*
 Kim Schuette, CN, Cert. GAPS Pract, expert on GAPS and mental health
 Stephanie Seneff, PhD, expert on sulfur and vitamin D
 Heather Tubbs, Snellville/Stone Mountain, Georgia chapter leader
 Andrew Wakefield, MD, gastroenterologist and vaccine expert
 Louisa Williams, MS, DC, ND, author of *Radical Medicine*
 Will Winter, DVM, expert on pastured livestock

LOCATION AND ACCOMMODATION

The conference will be held at the Sheraton Downtown Atlanta Hotel. A special conference hotel rate of \$149, plus applicable taxes and fees, is available until October 14, 2013. Self-parking is \$22 per day; Valet Parking is \$29 per day.

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	By Sept. 16	After Sept. 16
<input type="checkbox"/> Full Registration Student/Senior Member	\$290.	\$340.
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<input type="checkbox"/> Monday Homeopathy Workshop (8-4, includes lunch)	\$ 90.	\$100.
<input type="checkbox"/> Monday WAPF Cooking (8-4, includes lunch)	\$ 90.	\$100.

* Student/Seniors must show ID. Senior is 62 and older.

If you are attending as a daily registrant, please indicate the day(s) you will be attending:

- ☐ Friday November 8 Registration includes Conference Materials, Friday Sessions and Friday Lunch
☐ Saturday November 9 Registration includes Conference Materials, Saturday Joint Sessions and Saturday Lunch
☐ Sunday November 10 Registration includes Conference Materials, Sunday Sessions and Sunday Brunch

Friday Seminar Choice – please select one for planning purposes only, not binding.

☐ Nourishing Traditional Diets ☐ Radical Nutrition ☐ Sulfur in Disease ☐ Science of Farming ☐ Cooking

Saturday Choice – please select one for planning purposes only, not binding.

☐ Main General Session: Curing the Incurable ☐ Wellness Track ☐ Farming & Gardening

Sunday Seminar Choice – please select one for planning purposes only, not binding.

☐ Our Toxic World ☐ Cancer ☐ Native Ways ☐ Chronic Disease ☐ Making it Practical

Childcare (Child must be age 3-12 and potty trained)

Child's Name(s) _____ Age(s) _____

@ \$210 per child for Friday - Sunday includes Friday lunch & dinner, Saturday lunch, Sunday brunch

☐ GF/CF meals OR ☐ GF only OR ☐ CF only for _____ children OR _____ @ **\$100 per child**, includes no meals.

Continuing Education Credits for RNs & LACs. A \$5 certificate of attendance is available. It suffices for RDs & nutritionists.

☐ RN ☐ LAC - ☐ All 3 days \$65 ☐ Friday \$25 ☐ Saturday \$25 ☐ Sunday \$25//☐ RD or nutr. ☐ Cert of Attend. \$5.

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CHAPTER LEADERS

☐ I am a chapter leader.

☐ I plan to attend the Chapter Leader Meeting
Thursday, Nov 7, 10 am - 4 pm

How did you hear about the conference?

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|--|-------------------------------------|
| <input type="checkbox"/> WAPF journal | <input type="checkbox"/> WAPF email |
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What is your current occupation?

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| <input type="checkbox"/> Artisan Worker | <input type="checkbox"/> Chef |
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One adult registration per form, please.
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FOR FURTHER INFORMATION visit
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By submitting this form, I authorize Wise Traditions to charge the applicable registration fees. I understand that all cancellations must be submitted in writing and must be received by October 18, 2013 to be eligible for a refund, less a \$25.00 administrative fee. All refunds will be issued following the conference. Substitutions will be permitted at any time. Registration packets will not be mailed and must be picked up on-site at the conference registration desk at the Sheraton Atlanta Downtown Hotel.

CONFERENCE SCHEDULE

FRIDAY, NOVEMBER 8

ALL-DAY WORKSHOPS

Nourishing Traditional Diets, Sally Fallon Morell, MA
 Radical Nutrition, Louisa Williams, MS, DC, ND
 The Role of Sulfur in Chronic Disease, Stephanie Seneff, PhD
 Farming Track: Joseph Heckman, PhD, Donald R. Davis, PhD, Forrest Pritchard
 Cooking/Lifestyle Track: John Moody, Carrie Hahn, Ann Marie Michaels

EVENING ACTIVITIES

Microwave Ovens, Judith Mudrak
 Magnetism for Health, Dean Bonlie, DDS
 Evolutionary Psychology, Emily Deans, MD
 Soy and Water: Prison Diets, Sylvia Onusic, PhD, CNS, LDN
 Film: Symphony of the Soil

SATURDAY, NOVEMBER 10

PLENARY SESSION, CURING THE INCURABLE

The Fat-Soluble Activators and Heart Disease, Chris Masterjohn, PhD
 Bone Broth for Recovery from Chronic Disease, Kaayla Daniel, PhD
 Vitamin K2 and Chronic Disease, Kate Rhéaume-Bleue ND
 Recovery from Autism and Epilepsy, Kim Schuette, CN

WELLNESS TRACK

The Holistic Treatment of Cancer, Tom Cowan, MD
 The Gonzalez Cancer Therapy, Nicholas Gonzalez, MD

FARMING AND GARDENING TRACK

Seed Saving, Janisse Ray
 Soil Fertility, Joseph Heckman, PhD
 The Heritage Hen, Pat Foreman
 The Family Cow, Joann Grohman

EVENING AWARDS BANQUET

Keynote Address by Andrew Wakefield, MD, Integrity in Science

SUNDAY, NOVEMBER 11

TRACK I: CANCER

Iodine and Cancer, David Brownstein, MD
 Preventing Breast Cancer, Deborah Gordon, MD
 German New Medicine, Andi Locke Mears
 Kombucha and Cancer, Hannah Crum

TRACK II: CHRONIC DISEASE

Thyroid and Metabolism, Richard Maurer, ND
 Environmental Toxicity and Chronic Disease, Mark Schauss, MBA,
 Blood Deficiency in Chinese Medicine, Adriano Borgna, MSAC, LAC
 Fiber and Chronic Disease, Konstantin Monastyrsky

TRACK III: NATIVE WAYS

Edible Wild Plants, Mark Vorderbruggen
 Traditional Posture and Gait, Esther Gokhale, LAC
 Arctic Cuisine, Anore Jones
 Traditional Foods of Slovenia, Sylvia Onusic, PhD, CNS, LDN

TRACK IV: OUR TOXIC WORLD

Our Toxic Medical System, Joseph Mercola, DO
 Toxic Vaccines, Leslie Manookian
 Toxicity of Round-Up, Don Huber, PhD
 Empowering Detoxification, Kaayla Daniel, PhD, CCN

TRACK V: MAKING IT PRACTICAL

Breakfast, Lunch and Dinner, Sally Fallon Morell
 Food Co-ops and Buying Clubs, John Moody
 Long Way on a Little, Shannon Hayes, PhD
 Getting Started on a Nutrient-Dense Diet, Sarah Pope, MGA

CLOSING CEREMONY: Panel Discussion with Sally Fallon Morell and others

THURSDAY, NOVEMBER 8

Chapter Leaders Meeting 10 - 4

Workshop with Joel Salatin*
 Sponsored by Farm-to-Consumer
 Legal Defense Fund

Farm-to-Consumer Legal Defense FundRAISER*
 Dinner & Dance 6:00 - 10:30

* Additional fees apply.

FRIDAY, SATURDAY & SUNDAY

Farm-to-Consumer Legal Defense FundRAISER
 Breakfasts*

* Additional fees apply.

MONDAY, NOVEMBER 11

Farm Tour* with Will Winter and Kathy Kramer
 Posture and Movement*
 Esther Gokhale, LAC & Deborah Gordon, MD
 Homeopathy Seminar*
 Joette Calabrese, HMC
 Traditional Cooking *
 Heather Tubbs and Lupa Irie
 Raw Milk Track*
 Sally Fallon Morell, Gianacis Caldwell,
 Ted Beals, MD and Pete Kennedy, Esq

* Additional fees apply.

Space is extremely limited so be sure
 to secure your space today.

Genetically Engineered Foods May be Far More Harmful than We Thought

By Jeffrey M. Smith

Millions of people are looking for foods without genetically modified organisms (GMOs); thousands of doctors are prescribing non-GMO diets; and even celebrities like Danny DeVito, Bill Maher and Dick van Dyke have chimed in with their demands that these products be labeled.

As the movement swells, proponents of GMOs have become more aggressive at suppressing adverse data and promoting their myths, desperate to stem the anti-GMO tide. They continue to proclaim that the technology is precise, environmentally friendly, and needed to feed the world, in spite of evidence that shows just the opposite. But what is working against them more than anything else is the new data confirming that GMOs are dangerous to our health. In fact the evidence is so compelling, genetically engineered foods may soon be blamed for promoting a wide range of serious diseases on the rise in the U.S. and elsewhere.

INDUSTRY-MANIPULATED APPROVAL PROCESS IN THE U.S.

One would hope that our government would take every precaution before allowing GMOs in our food and environment. After all, any health issue with GMOs could theoretically impact everyone who eats. And once GMO crops are released into the environment, the pollen and seed movement contaminate the natural gene pool on a permanent basis. Moreover, the stated goal of the leading biotech company, Monsanto, is to genetically engineer all commercial seeds in the world. This would permanently replace the products of billions of years of evolution and thousands of years of agricultural crop development with a new, untested technology, promoted by the same company that told us Agent Orange, PCBs, and DDT were safe.

But with the safety of the food supply and the integrity of our ecosystem at stake, just the opposite happened. All precaution was thrown to the wind, and the U.S. government engaged in what arguably can be called the greatest gamble of our lives.

The story at the FDA is typical. In the early 1990s, scientists at the United States Food and Drug Administration (FDA) repeatedly warned their superiors that GM foods could create serious health problems. According to secret documents later made public from a lawsuit, the scientific consensus at the agency was that GM foods were inherently dangerous and might create hard-to-detect allergies, toxins, new diseases and nutritional problems. They urged their superiors to require rigorous long-term tests. But the White House under George H. W. Bush had ordered the agency to promote biotechnology; the FDA responded by recruiting Monsanto's former attorney, Michael Taylor, to head up the formation of policy on GMOs. That policy, which is in effect today, denies knowledge of the agency scientists' concerns. In fact, it falsely claims that the FDA is not aware of any information that shows genetically engineered food to be significantly different from other food. On that basis, no safety studies on GM foods are required. The government leaves it up to GMO companies, including Monsanto, DuPont, Dow, Syngenta and Bayer, to determine whether their own foods are safe.

After overseeing GMO policy at the FDA, Mr. Taylor worked on GMO issues at the U.S. Department of Agriculture, and then later became Monsanto's vice president and chief lobbyist. In the summer of 2009, he was appointed by the Obama administration as the U.S. food safety czar back at the FDA.

Although the United States government policy today is built upon the false notion that GMOs are totally safe, evidence accumulated over nearly two decades now vindicates the original FDA scientists and validates their concerns.

ANIMAL FEEDING STUDIES INDICATE HEALTH ISSUES

After seeing all scientific precaution stripped away from the government's approval process of GMOs, FDA microbiologist Louis Pribyl accurately predicted in 1993 that "Industry will do what it *has* to do to satisfy the FDA 'requirements' and not do the tests that they would normally do because they are not on the FDA's list."¹ In reality, the safety research conducted by the biotech industry remains superficial in its scope and sparse in its volume. A 2007 review of published scientific literature on the health risks of GM plants, for example, described the number of studies and available data as "very scarce."² Nonetheless, a careful analysis of both industry and independent studies does demonstrate significant harm to animals fed GMOs.

Based on their review of this body of research, in May 2009 the American Academy of Environmental Medicine (AAEM) publicly condemned GMOs in our food supply, saying they posed "a serious health risk." They called on the U.S. government to implement an immediate moratorium on all GM foods and urged physicians to prescribe non-GMO diets for all patients.

AAEM members have a tradition of looking for new disease trends and their causes. As such, they have come to be known as the "Academy of Firsts." They were the first U.S. medical organization to describe or acknowledge Gulf War Syndrome, the first to acknowledge chemical sensitivity, the first to characterize food allergy/addiction, and the first to introduce or acknowledge more than a dozen other medical issues. They are one of the first medical organizations

In the early 1990s, scientists at the United States Food and Drug Administration (FDA) repeatedly warned their superiors that GM foods could create serious health problems.

“Children are the most likely to be adversely affected by toxins and other dietary problems” related to GM foods, says Dr. David Schubert of the Salk Institute. They become “the experimental animals.”

to identify GMOs as harmful.

According to their policy paper, several animal studies reveal a long list of disorders, including infertility, immune dysregulation, accelerated aging, dysregulation of genes associated with cholesterol synthesis, [faulty] insulin regulation, cell signaling, and protein formation, and changes in the liver, kidney, spleen and gastrointestinal system. The policy statement boldly concludes, “There is more than a casual association between GM foods and adverse health effects.” Based on established scientific criteria, “there is causation.”

“Physicians are probably seeing the effects in their patients,” says AAEM past-president Jennifer Armstrong, MD, “but need to know how to ask the right questions.” The patients at greatest risk are the very young. “Children are the most likely to be adversely affected by toxins and other dietary problems” related to GM foods, says Dr. David Schubert of the Salk Institute. They become “the experimental animals.”

RISING DISEASE RATES CORRELATE WITH GMO INTRODUCTION

Unfortunately, no system of post market surveillance on the health impacts of GMOs has been set up anywhere in the world. Although correlation clearly does not imply causation, the deteriorating health of Americans since GMOs were introduced in 1996 does raise important

questions. Within nine years, the number of people with three or more chronic diseases nearly doubled—from 7 percent to 13 percent. Visits to the emergency room due to allergies more than doubled from 1997 to 2002. And overall food-related illnesses doubled from 1994 to 2001, according to the Centers for Disease Control.

Physicist Nancy Swanson compiled numerous charts showing high correlations between GMO production (or Roundup herbicide use) and the incidence of numerous disorders in the U.S. (See charts: thyroid cancer, kidney and renal pelvis cancer, liver and intrahepatic bile duct cancer, obesity, high blood pressure, acute kidney injury, diabetes, end stage renal disease, reproductive disorders, autism, Alzheimer’s, Parkinson’s, senile dementia, inflammatory bowel disease, peritonitis, chronic constipation, irritable bowel, intestinal infection, and rheumatoid arthritis.)

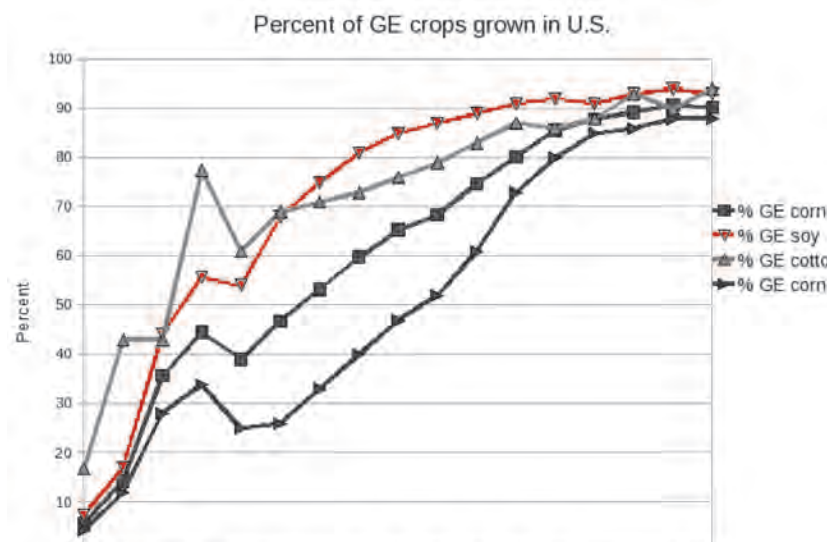
Tragically, there is no systematic, well-funded investigation to explore links between GMO consumption and any disease. “The experiments simply haven’t been done and we now have become the guinea pigs,” says renowned Canadian geneticist David Suzuki. He adds, “Anyone that says, ‘Oh, we know that this is perfectly safe,’ I say is either unbelievably stupid or deliberately lying.”

NUMEROUS U.S. PHYSICIANS NOW BLAME GMOs

Based on evaluations of GMO research presented at medical conferences, as well as recommendations by their peers, thousands of U.S. physicians now prescribe non-GMO diets to all their patients. The Institute for Responsible Technology has started hearing reports and collecting case studies from physicians, patients and consumers about significant and often dramatic improvements in health and alleviation of symptoms from a wide variety of diseases and disorders after removing GMOs from the diet.

Michelle Perro, MD, who is regularly named one of America’s top pediatricians, says she believes that the novel proteins found in GMOs “may be responsible in part for the profound increase in allergies and immune dysfunction that I am witnessing.”

Emily Lindner, MD, who practices internal medicine in Chicago, says, “When my patients



stop eating GMOs, they get better.” She says, “I tell my patients to avoid genetically modified foods because in my experience, with those foods there is more allergies and asthma,” as well as digestive issues such as gas, bloating, irritable bowel, colitis and leaky gut. “And what emanates from that,” she says, “is everything. Lots of arthritis problems, autoimmune diseases, anxiety . . . neurological problems; anything that comes from an impaired immune system response.”

LIVESTOCK HEALTH IMPROVES

People who switch to non-GMO diets often do so by buying organic foods—which are not allowed to use GMOs. This raises a critical point in the analysis. Were the health recoveries stemming from eliminating GMOs or from the reduction in chemicals and increased nutrition found in organics? Similarly, since most GMOs in our diet are found in processed foods, some people reduce GMOs by cooking from scratch. Thus they simultaneously eliminate numerous additives that also may contribute to disorders. It is difficult, therefore, to isolate the influence of GMOs in the presence of these other potential co-factors.

Fortunately, the experience of numerous veterinarians and farmers around the world gives us insight. When they take livestock off GMO soy or corn and substitute the non-GMO equivalent, they don’t have these confounding co-factors. The animals are not eating organic, there’s no change in nutrients or additives, and the results are breathtaking.

When a Danish pig farmer switched to non-GMO soy in April 2011 for his four hundred fifty sows and their offspring, within two days the animals’ serious diarrhea problems virtually disappeared. During the following year, death from ulcers and other digestive problems, which had claimed thirty-six pigs over the previous two years, vanished. Conception rate was up, litter size was up, diseases were down, and birth defects were eliminated.

An Iowa farmer saw immediate changes in his three-thousand-pig nursery after switching to non-GMO corn last December. Not only was there a dramatic drop in rate of disease and medicine bills, he says, “Our pigs are happier and more playful.”

A feedlot operator with five thousand head of cattle also switched to non-GMO corn and reported, “We’ve had a lot less pneumonia and health issues since that time.” Like the pig farmer, the behavior changed noticeably. His “cattle have been a lot calmer.” Many farmers who were struggling with high rates of infertility and miscarriage say they turned the situation around after switching to non-GMO feed.

Renowned veterinarian and author Michael W. Fox, whose syndicated newspaper column has twenty-five to thirty million readers, says that when GMOs were introduced, cats and dogs started suffering from much higher rates of allergies, itching and gastrointestinal problems. He has a file drawer full of letters from happy pet owners confirming that his advice to switch the pets to non-GMO and organic feed cleared up the problem.

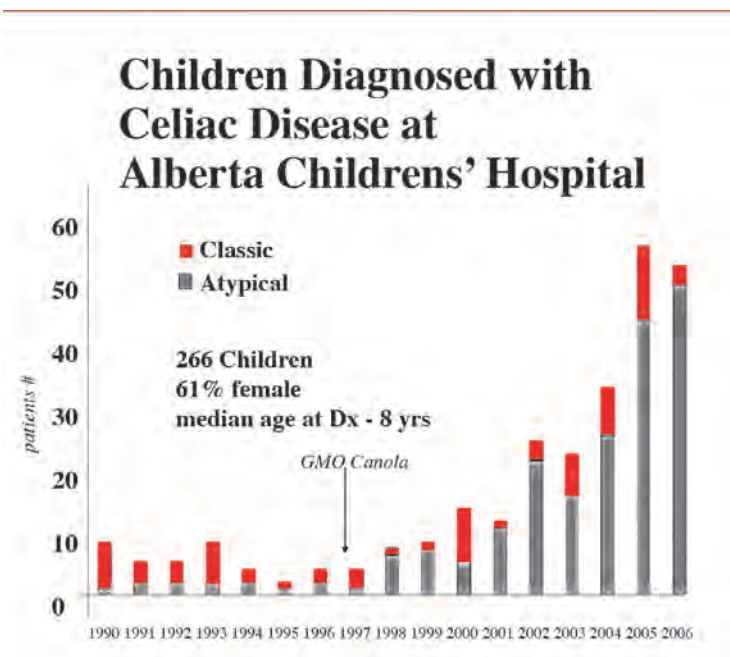
REPEATING SYMPTOMS: FROM LAB RATS TO CONSUMERS

What is striking about all these reports is the similarity of experiences. Many of the same categories of disorders identified in animal feeding studies by the American Academy of Environmental Medicine, such as gastrointestinal, immune, and reproductive problems, also clear up in humans and livestock when they switch to a non-GMO diet. Moreover, these same problems are on the rise in the U.S. population since GMOs were introduced in 1996.

HOW GM FOODS CAUSE HEALTH PROBLEMS

There are many ways that GM foods might produce or exacerbate these health problems. We examine five categories below:

First, the process of genetic engineering creates unpredicted altera-



Mice fed natural Bt-toxin showed significant immune responses and became sensitive to other formerly harmless compounds.

tions. The gene insertion process, whether accomplished via a “gene gun” or through infection by *Agrobacterium*, can really mess up the normal functioning of the plants’ DNA. It can create mutations, deletions, and altered gene expression near the point where the gene is inserted and elsewhere. Then the transformed cell is cloned into a GM plant using tissue culture, which can produce hundreds or thousands of additional mutations throughout the plants’ genome. In total, a GM plant’s DNA can be 2-4 percent different from that of its natural parent.³ In addition, up to 5 percent of the natural genes can alter their levels of protein expression as a result of a single insertion.⁴

These changes can result in new or higher levels of allergens, toxins, carcinogens and anti-nutrients. For example, Monsanto’s data

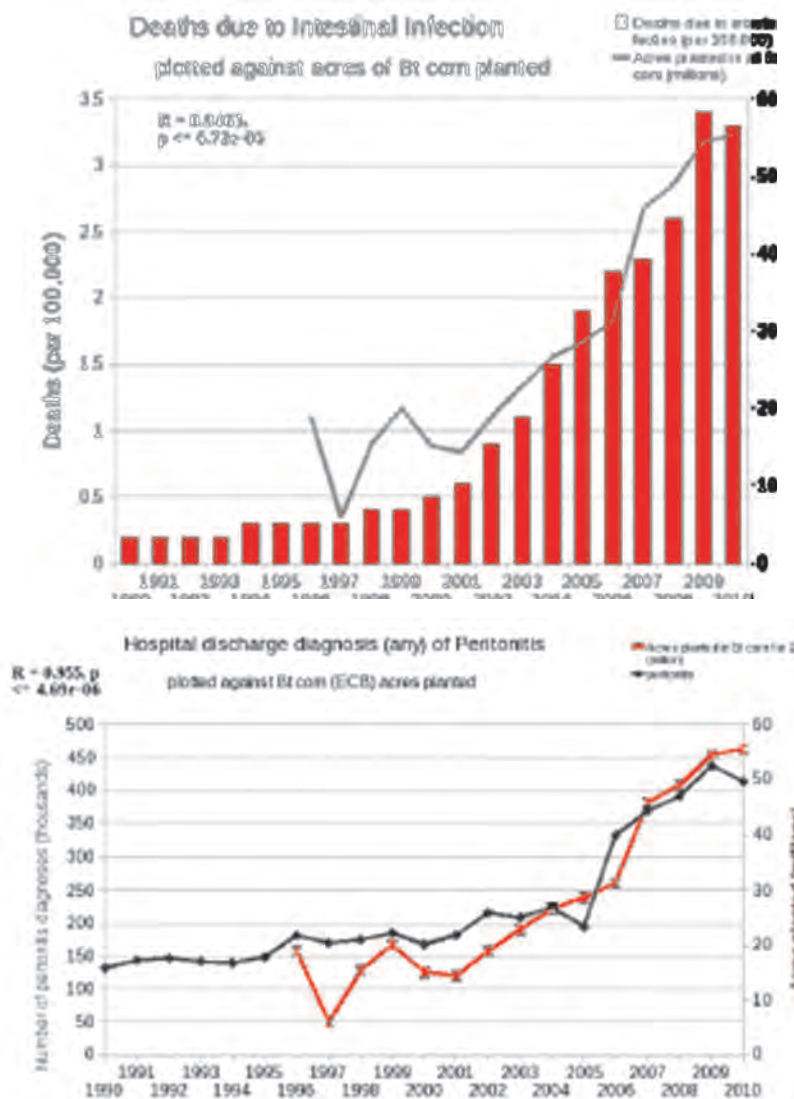
on cooked GM soybeans shows as much as seven times the level of a natural soy allergen, trypsin inhibitor, compared to non-GMO soy.⁵ Monsanto’s Bt corn (Mon 810) produces an allergenic protein that is not produced in natural corn—the genetic engineering process switches on the silent gene.⁶ And both GM corn and soy produce higher amounts of lignin; the metabolic pathway that produces lignin also produces a plant pesticide called rotenone, which is linked to Parkinson’s disease.

Secondly, the protein produced by the inserted gene may cause harm. The genes inserted into GM crops produce new proteins into the human diet, which may be allergenic, toxic, or otherwise harmful. The transgenic proteins in GM soy, corn and papaya all have properties of known allergens, for example, and may trigger reactions.

The protein produced in Bt corn, however, is an insecticide and has scientists and physicians particularly worried about its effects on humans. These corn (and Bt cotton) plant varieties are engineered to produce Bt-toxin in every cell, which kills certain insects by destroying the integrity of their gut. The biotech companies claim that Bt-toxin is safe since the natural form of Bt-toxin—produced from *Bacillus thuringiensis* bacteria—has been used by farmers for decades as a method of natural insect control. But several studies demonstrate that both humans and mammals react to the natural spray.

Mice fed natural Bt-toxin showed significant immune responses and became sensitive to other formerly harmless compounds.^{7,8,9} They also showed tissue damage in their small intestines.¹⁰ Farm workers and others have also had reactions to natural Bt-toxin,¹¹⁻¹⁵ and authorities acknowledge that “People with compromised immune systems or preexisting allergies may be particularly susceptible to the effects of Bt.”¹⁶ When natural Bt was sprayed in Vancouver and Washington State to fight gypsy moths, approximately five hundred people reported allergy or flu-like symptoms, with some requiring emergency room visits.^{17,18}

The bacterial gene that produces the Bt-toxin is inserted into GM crops. The Bt-toxin produced in GM plants, however, is three to five thousand times more concentrated than the spray, doesn’t



wash off or biodegrade,^{19,20} and is *designed* to be more toxic than the natural version.²¹

A 2008 Italian government study found that Bt corn provoked profound immune responses in mice.²² Monsanto's own rat studies with Bt corn also showed toxicity and immune responses.²³ Numerous reports, including medical investigations and hospital records, show that thousands of agricultural workers in India exposed to GM Bt cotton varieties are reporting rashes and symptoms that are similar to those experienced by the five hundred people in the Pacific Northwest who were exposed to Bt-spray.²⁴

Bt-TOXIN DAMAGES CELL WALLS

Bt-toxin kills insects by creating small holes (pores) in the cell walls of their digestive tracts, which in turn allow bacteria and other substances to pass through. The U.S. Environmental Protection Agency (EPA), which labels Bt corn and Bt cotton plants as registered pesticides, insists that Bt-toxin will have absolutely no influence on human or mammalian cells. But research published in the *Journal of Applied Toxicology*²⁵ in 2012 proves otherwise. Researchers "documented that modified Bt toxins [from GM plants] are not inert on human cells, but can exert toxicity." In high concentrations (generally higher than that produced in average Bt corn), Bt-toxin disrupts the membrane in just twenty-four hours, causing certain fluids to leak through the cell walls. The authors specifically note, "This may be due to pore formation like in insect cells." Thus, Bt-toxin may indeed create small holes in our intestines.

Garry Gordon, MD, warns, "If [Bt-toxin] is causing an increased propensity for our intestine to become permeable or leaky and for foods to be presented to our bloodstream in a premature fashion, the havoc that it will cause will be across the entire spectrum of disease, from premature aging and Alzheimer's to Parkinson's to autism to cancer to asthma."

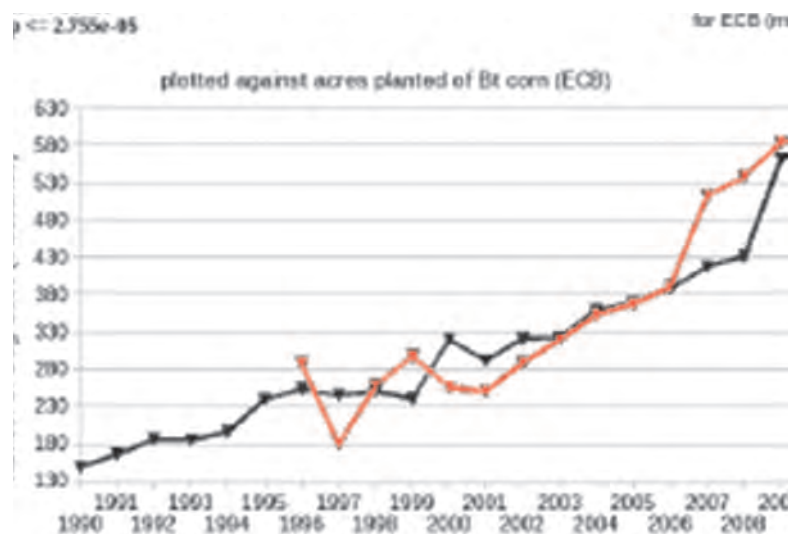
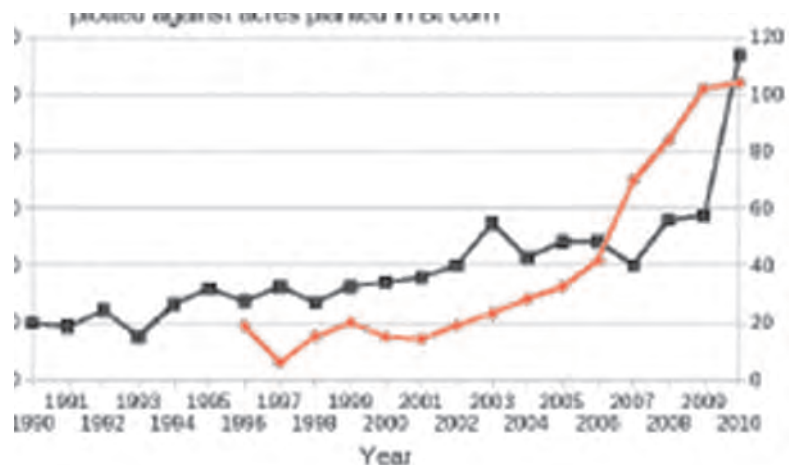
The EPA had also claimed that Bt-toxin was destroyed during digestion in humans. But a 2011 Canadian study conducted at Sherbrooke Hospital discovered that 93 percent of the pregnant women they tested had Bt-toxin in their blood. And so too did 80 percent of their unborn fetuses.²⁶ Thus, not only was the toxin not fully broken

down in the stomach, a toxin is circulating within our blood stream that might further damage the cell walls it encounters. And in fetuses, which don't have developed blood-brain barriers, this might result in damage to brain cells.

UNINTENDED CONSEQUENCES

The third way GMOs can cause harm stems from the fact that transgenic protein may be different from the original and create unintended health hazards. In order for the inserted gene to produce proteins, the piece of DNA is first "transcribed" into RNA, and then "translated" to produce amino acid sequences, which are only then folded into proteins. These proteins confer the desired traits in the GMOs. The insertion process, however, can cause mutations and truncations in the genetic code of the inserted transgene. Monsanto's Mon 810 Bt corn, for

Thus, Bt-toxin may indeed create small holes in our intestines.



Numerous studies in the past several years have implicated Roundup, or its active ingredient glyphosate, in cancer, birth defects, endocrine disorders, Parkinson's, and damage to gut bacteria.

example, lost 30 percent of the transgene during insertion, and another of their Bt corns (Mon 863) ended up a mutation within the transgene. If the original transgene sequences are changed, then the amino acid sequences of proteins they produce in GMOs can similarly be altered, with unpredictable side-effects.

Even if the transgene gets into the plant DNA unscathed, the transcription process from DNA to RNA may also introduce unpredicted changes. Monsanto's Roundup Ready soybean, for example, does not produce the RNA that Monsanto engineers intended. Instead, because a portion of the genetic sequence they inserted into the plant's DNA (the "termination" sequence) failed to function properly, the soybean actually produces four RNA transcripts.²⁷ These can produce proteins of different shapes and sequences.

And even if the RNA functions fine and produces the amino acids in the desired sequence, they may be misfolded; or molecules may attach themselves to the folded protein causing dangerous side-effects. For example, when Australian scientists inserted a gene from kidney beans into peas, the protein produced in a genetically engineered pea had the right amino acid sequence—the same as that produced in kidney beans. But the sugar molecules attached to the protein in the peas had a slightly different shape from the molecules that attached themselves in the natural beans. This slight change of the sugar chain (called glycosylation) was credited with changing a harmless protein into a potentially deadly allergen.²⁸

HERBICIDE DANGERS

The fourth danger concerns the large quantity of toxic herbicides used on GM herbicide-tolerant crops. The vast majority of GMOs are herbicide tolerant—they allow specific herbicides to be sprayed on fields without damaging the GM plant. Roundup Ready soybeans, for example, tolerate applications of Roundup herbicide. Herbicide-tolerant crops have led to an increase in herbicide use of five hundred twenty-seven million pounds in the U.S. over the first sixteen years,²⁹ and significantly higher levels of toxic residues in GM food.

Numerous studies in the past several years have implicated Roundup, or its active ingredient

glyphosate, in cancer, birth defects, endocrine disorders, Parkinson's, and damage to gut bacteria.³⁰ A 2013 paper in the journal *Entropy* goes even further. Examining the biochemical impacts of glyphosate on two key metabolic pathways, as well as its ability to bind with minerals and make them inassimilable, the authors link it to "most of the diseases and conditions associated with a Western diet, which include gastrointestinal disorders, obesity, diabetes, heart disease, depression, autism, infertility, cancer and Alzheimer's disease."³¹

GENE TRANSFER

Finally, transgenes inserted into GM crops can transfer to DNA of gut flora. According to one of the only published human feeding studies on GMOs, part of the transgenes from Roundup Ready soybeans transferred into bacteria living inside our intestines.³² In addition, the viral promoter, which turns on the gene and which forces continuous production of proteins, was also transferred intact. The gut bacteria from the human subjects that had acquired these transgenes were *not* killed by glyphosate—which is a powerful broad spectrum antibiotic. The survival of these bacteria in the presence of glyphosate supports the likelihood that even after being transferred into the DNA of the gut flora, the soy transgenes continued to produce the Roundup Ready proteins. If so, even short term exposure to GM foods might result in long-term exposure to transgenic proteins that are produced continuously inside our digestive systems. The medical consequences are unknown, but potentially catastrophic. Consider the various genetic components that might transfer and their implications:

- The Roundup Ready gene produces a protein that has properties of a dust mite allergen, and therefore fails the World Health Organization's recommended allergen screening protocol. If produced by our own gut bacteria, this protein might continuously trigger immune reactions.
- The viral promoter has the capacity to switch on unintended genes. It may therefore cause the overproduction of proteins from randomly switched-on genes found within

SOME LIES GMO LABELING OPPONENTS ARE RECYCLING IN WASHINGTON STATE

By Zack Kaldveer, Organic Consumers Association, August 21, 2013

It's déjà vu all over again. Last year a coalition of out-of-state, multinational biotech, pesticide and junk food corporations spent nearly forty-six million dollars to narrowly defeat Proposition 37, California's GMO Labeling Initiative. Now the same who's who of the world's most notorious global corporate bad actors has descended on Washington State. Why? To try to stop Washington State voters from passing I-522, a citizens' initiative which, if passed, will require mandatory labeling of genetically modified organisms (GMOs) in all food products sold in Washington State.

LIE: Labeling genetically engineered foods (GMOs) will cost taxpayers millions of dollars a year.

TRUTH: Empirical studies have concluded labeling would lead to no increases in prices. Since the European Union labeled GMOs in the 1990's, there has been "no resulting increase in grocery costs." Trader Joe's, Clif Bar & Co. and Washington's own PCC Natural Markets all label their non-GMO product lines at no additional cost to consumers.

LIE: I-522 is full of arbitrary special interest exemptions that will just confuse consumers.

TRUTH: I-522 requires labeling for the GE foods that are most prevalent in the American diet: food on supermarket shelves. I-522's exemptions are easy to explain and guided by common sense and the law.

LIE: Consumers don't need labels to avoid GMOs. All they need to do is buy certified organic products.

TRUTH: Food companies routinely and intentionally mislead consumers by labeling products "natural" in order to attract health-conscious consumers. Because the U.S. Food & Drug Administration (FDA) does not prohibit the use of the word "natural" on products containing GMOs, most consumers are fooled by this label.

LIE: Washington will be the only state in the nation to label GMOs, unfairly hurting farmers and the state's multi-billion dollar agricultural industry.

TRUTH: Washington won't be the only state labeling GE foods. Connecticut, Maine and Alaska have passed labeling laws and dozens of other states are considering identical proposals. Besides, sixty-four countries already require labeling, so many farmers are already used to labeling for exports.

LIE: I-522 encourages shakedown lawsuits by giving trial lawyers an unprecedented new right to sue farmers, food producers and store owners over the wording on food labels.

TRUTH: I-522 offers no economic incentives for lawyers to sue. Consumers can't file a class action suit against food producers without first giving the food producer a warning and the opportunity to comply with the law. As long as the defendant fixes the labels, then no class action is permitted.

LIE: Labeling GMOs creates a bureaucratic nightmare for grocers and retailers and requires the state government to monitor labels on thousands of food products in thousands of stores, costing taxpayers millions.

TRUTH: Under I-522, the person responsible for labeling processed foods is the person who puts the label on: the manufacturer. Retailers would only have to label the few raw commodities (sweet corn, papaya, squash) that are genetically engineered. They can either stick a simple label on the bin or, if they wish, they can ask their supplier for a sworn statement that the crop is not genetically engineered. I-522 requires no costly testing for GE ingredients. No burdensome government oversight is necessary. The system is inherently designed to protect small grocers and retailers while providing consumers with the right to know what's in their food without increasing grocery costs.

LIE: GE foods pose no health safety risks.

TRUTH: A growing body of peer-reviewed animal studies have linked these foods to allergies, organ toxicity, diabetes, cancer, autoimmune disorders, birth defects, high infant mortality rates, fertility problems, and sterility.

LIE: We need GMOs to feed the world.

TRUTH: Studies have proven that GE crops do not lead to greater crop yields. In fact, just the opposite is true. A 2009 study by the Union of Concerned Scientists found GMO crops fail to produce higher yields. And a recently released, peer-reviewed study published in the *International Journal of Agricultural Sustainability* found that conventional plant breeding, not genetic engineering, is responsible for yield increases in major U.S. crops.

the gut bacteria.

- Antibiotic resistant marker genes, used in most GM food crops, might create super diseases, untreatable with antibiotics.
- GM papaya, zucchini and yellow squash have viral transgenes that may produce viral proteins. More than one hundred studies show that viral proteins can suppress an organism's defenses against viral infections³³ or have toxic effects.
- The Bt gene might transfer from GM corn and convert our intestinal flora into living pesticide factories.

This last risk may explain the results of a study presented above. Recall that 93 percent of pregnant women tested had the Bt-toxin in their blood. The toxin is likely to wash out of our blood fairly quickly; therefore the consumption of Bt-toxin would have to be very frequent to explain this finding. But Canadians don't eat corn products that often. (Although Canadians and Americans eat a lot of corn derivatives like corn syrup, the Bt-toxin is destroyed in these highly processed foods, so that would not be the source of this blood contaminant.)

The study authors suggest that the source of Bt-toxin—which ultimately came from Monsanto's Bt corn—may have been acquired in milk and meat from animals fed the corn. This would require, however, that the protein remain intact both through the animals' digestive process and the humans'. While this might be true, a more plausible explanation may be that the Bt-toxin was produced by the gut flora within the digestive tract, after the flora acquired the genes from corn tortillas, corn on the cob, etc.



Massive multiple tumors
in mouse fed GM corn.

each component had a negative impact and the actual harm to humans and animals eating GMOs may be due to the synergy of causes.

TIPPING POINT AGAINST GMOs RISING

Although governments have not been fully responsive to the mounting evidence of harm from GMOs, consumers are reacting in greater numbers. The impact can be significant and world-changing. In Europe, after the media publicized significant health risks of GMOs in early 1999, a tipping point of consumer rejection forced the food companies to commit to remove GM ingredients on that continent. Now consumer rejection in the U.S. appears to be setting the stage for the removal of GMOs in this country as well.

Consumer concern over GMO health risks has driven unprecedented demand for non-GMO products. In fact, 2012 sales of non-GMO labeled products in the United States increased more than any other health and wellness category, according to 2012 Nielsen Health and Wellness Claims Performance Report. An executive at the national food store chain Whole Foods said that when a product becomes verified as non-GMO, sales increase by 15-30 percent.

A May 27th *New York Times* article entitled "Seeking Food Ingredients That Aren't Gene-Altered" conveyed the profound industry-wide ripple effect of the emerging non-GMO consumer trend. The article highlighted the "March Against Monsanto" by more than two million people in fifty-two countries; the more than two dozen U.S. state legislatures introducing GMO labeling bills; hundreds of companies recently enrolling products in the third-party non-GMO verifier, the Non-GMO Project; company executives who were worried that their supply of non-GMO ingredients would be lost to newcomer brands; and some companies that were already going overseas to get their hard-to-find non-GMO in-

OVERLAPPING CAUSATIVE FACTORS

While these are just some of the ways that GMOs may cause harm, in reality, their effects may be due to a combination of causative factors. In a French two-year feeding study published in 2012, for example, rats suffered from multiple massive tumors, shorter life spans, and organ damage. The research design used several different treatment groups: those fed Roundup Ready corn that had been sprayed with Roundup, those fed Roundup Ready corn without Roundup applied, and those fed just Roundup with no added GMO corn. All three groups suffered from these maladies to various degrees, while the controls fared much better. Thus,

gredients. In addition, food processors were seeking more non-GMO soy and corn, and farmers were already enjoying recent increases in non-GMO premiums per bushel.

If food company execs had any doubts about the trend, within three weeks they were likely extinguished. GMO labeling bills passed in Connecticut and Maine; the national chain of Target stores announced that their home brand will be fully non-GMO by 2014; the national restaurant chain Chipotle committed to label (then soon remove) all GMOs and two more studies highlighted GMO dangers (damaged blood cells in mice,³⁵ inflamed and ulcerated stomachs and enlarged uteruses in pigs³⁶). In addition, genetically engineered Roundup Ready wheat—which had not been approved for use in any country in the world—was discovered growing in an Oregon farmer's field. Japan and South Korea temporarily suspended U.S. imports of wheat, and the food industry was once again reminded of the uncontrollable risk of GMO contamination thrust upon them by the biotech industry.

The next stage of the tipping point will come shortly, when a popular mainstream product, not sold in natural food stores, announces that it is Non-GMO Project verified. The “Battle for Market Share” between that product and the GMO-laden brand leaders on the shelves in Walmart and Safeway will be watched by the entire food industry. If the market share shifts towards the non-GMO product, then every other brand category will be inspired to quickly eliminate GMOs and declare it. Otherwise their competitor might beat them to it and grab market share as well.

MAKING A CHOICE FOR OURSELVES AND OUR FUTURE

The current situation is dangerous. GMOs are likely promoting the rise of numerous diseases in humans and animals, and creating widespread chemical and genetic pollution in the environment. Those who call for more science are ironically labeled by the biotech industry as “anti-science.” And the scientists who do discover safety problems or even express concerns are typically attacked and dismissed.


If reviewers were to reevaluate the technology in an independent manner, free from the manufactured bias of the biotech industry, they would be compelled to withdraw GMOs from our food supply and prevent releases in our environment. But the U.S. government ignores the mounting evidence of health problems linked to GMOs, the accelerating rejection of these foods by U.S. consumers, and the failure of GMOs to live up to their promises. The Obama administration, like those before him, has not backed down from their unconditional support of the biotech industry. In fact, a recent Wikileaks analysis by

THE EVIDENCE MOUNTS: SOME STUDIES SHOWING GMO DANGERS

- Scientists at the Russian Academy of Sciences reported between 2005 and 2006 that female rats fed Roundup Ready-tolerant GM soy produced excessive numbers of severely stunted pups with more than half of the litter dying within three weeks, and the surviving pups completely sterile.³⁷
- In 2005, scientists at the Commonwealth Scientific and Industrial Research Organization in Canberra, Australia reported that a harmless protein in beans (alpha-amylase inhibitor) transferred to peas caused inflammation in the lungs of mice and provoked sensitivities to other proteins in the diet.³⁸
- From 2002 to 2005, scientists at the Universities of Urbino, Perugia and Pavia in Italy published reports indicating that GM soy affected cells in the pancreas, liver and testes of young mice.³⁹
- In 2004, Monsanto's secret research dossier showed that rats fed MON863 GM corn developed serious kidney and blood abnormalities.⁴⁰
- In 1998, Dr. Arpad Pusztai and colleagues formerly of the Rowett Institute in Scotland reported damage in every organ system of young rats fed GM potatoes containing snowdrop lectin, including a stomach lining twice as thick as controls.⁴¹
- Also in 1998, scientists in Egypt found similar effects in the guts of mice fed Bt potato.⁴²
- The U.S. Food and Drug Administration had data dating back to early 1990s showing that rats fed GM tomatoes with antisense gene to delay ripening had developed small holes in their stomachs.⁴³
- In 2002, Aventis company (later Bayer Cropscience) submitted data to UK regulators showing that chickens fed glufosinate-tolerant GM corn Chardon LL were twice as likely to die compared with controls.⁴³
- In 2012, researchers found that female rats fed Roundup Ready-tolerant GM corn developed large tumors and dysfunction of the pituitary gland; males also developed tumors and exhibited pathologies of the liver and kidney.⁴³

Food and Water Watch revealed how the U.S. State Department is secretly working on behalf of the biotech industry's interests worldwide.

Given proper time and research, it is theoretically possible that genetically engineered products would become predictable, safe and beneficial. But at this point it is not responsible to expose the products of this infant science to all who eat, or to release them into the ecosystem where they can never be fully recalled.

Fortunately, U.S. citizens are no longer accepting the baseless claims that GMOs are safe. As they wake up to the risks of GMOs, they take matters into their own hands and seek non-GMO alternatives. If the food industry responds in America like they did in Europe, consumers will ultimately move the market and protect themselves from the risks of this dangerous technology. 

Jeffrey Smith is the executive director of the Institute for Responsible Technology. His globally respected research captured public attention in 2003 with his first book Seeds of Deception—the world's bestselling book on genetically modified (GM) foods, published in ten languages. Mr. Smith's recent book, Genetic Roulette: The Documented Health Risks of Genetically Modified Foods, presents sixty-five health dangers of GM foods and demonstrates that current safety assessments are not competent to protect the public from harm. A popular keynote speaker, Mr. Smith has lectured in more than 25 countries and has counseled world leaders from every continent. He has been quoted by hundreds of media outlets across the globe including, The New York Times, Washington Post, BBC World Service, Nature, New Scientist, and Time Magazine. Mr. Smith is the founder of the GM-Free School Campaign, as well as The Campaign for Healthier Eating in America, a revolutionary industry and consumer movement designed to remove GM ingredients from the U.S. food supply. Visit his website at www.seedsofdeception.com.

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CONTACT INFORMATION FOR GROUP SEEKING WAPF TEAM MEMBERS

In our Spring 2013 letters section, we published an appeal from Katharine Spehar of Branford, Connecticut, but we neglected to provide Katharine's email address! Katharine represents a small group of Weston A. Price Foundation (WAPF) members who are planning a venture to make nutrient-dense food more available to people when they are away from home. She and her group are looking for individuals with restaurant-industry experience, preferably in management and/or procurement, to join her team. If you are interested in participating, please contact her or forward this message to someone you know who may be interested. Her email address is kjspehar@gmail.com.

Roundup®: The “Nontoxic” Chemical that May Be Destroying our Health

By Stephanie Seneff, PhD

According to Monsanto, producer of Roundup®, the most popular herbicide used on the planet, the product is nearly nontoxic for humans. The usage of Roundup to kill weeds has skyrocketed around the world since the year 2000, in part because it went off patent that year, but also because of the enormous increase (especially in the U.S.) in the appearance of “Roundup-Ready” GMO crops.⁴

Glyphosate, the active ingredient in Roundup, kills weeds by interfering with what is called the shikimate pathway. This pathway is essential in plants for the synthesis of a class of amino acids called the “aromatics.” But this pathway is nonexistent in any mammalian cell. By simple logic, the fact that our cells don’t have this pathway means that glyphosate cannot harm us. Is there a fallacy in this argument?

GLYPHOSATE CONNECTION TO DISEASE

While mammals don't possess the shikimate pathway, all of the microbes that take up residence in our digestive tract do have this pathway, and exposure to glyphosate, the active ingredient in Roundup, will cause them serious stress as a consequence. Studies have shown that glyphosate disrupts the gut bacteria in chickens,⁵⁴ cows,²⁹ and pigs,¹⁰ causing inflammation in the gut along with an overgrowth of pathogenic forms and concurrent loss of beneficial bacteria. It is now becoming apparent that our gut bacteria, which outnumber our own cells by a factor of ten to one, play many important roles in supplying nutrients and protecting us from toxins.¹⁹ There's also an intricate connection between the gut and the brain, such that an unhealthy digestive system translates into pathologies in the brain.³⁵

Together with Anthony Samsel, I recently published a paper arguing that Roundup® could plausibly be the most important factor in the observed increase in a number of diseases and conditions like obesity and autism over the past two decades in the U.S.⁴⁷ Despite spending nearly two and a half times as much on health care as our peer nations,³⁶ the U.S. lags behind many of these other nations in basic metrics like infant mortality and life expectancy.³⁴ The most recent figures for infant mortality place the U.S. at number forty-six, behind Cuba and Guam. Clearly we are doing something wrong, and our wholesale embrace of GMOs is an obvious candidate.

Ninety percent of the GMO crops (GMO corn, soy, cotton, sugar beets, and canola) are engineered to be "Roundup Ready," which means that they can be sprayed with Roundup and they will happily soak it up into their tissues. The practice of "desiccating" crops like wheat and sugar cane just before the harvest by spraying them with Roundup is also becoming more and more popular as a way to reduce the amount of vegetation that needs to be cleared in preparation for planting next year's crop. These two changes in agricultural practices almost certainly mean that Roundup is entering our food supply in record amounts. And most homeowners are likely careless in their use of Roundup to fight weeds on the lawn, due to a misconception that it is nearly nontoxic. A recent study involved sampling glyphosate in the urine of city-dwellers

in eighteen European countries.²³ Measurable amounts of glyphosate were found in 44 percent of these people, despite the fact that Europe has a much more conservative view towards GMOs than does the U.S.

So, why is the shikimate pathway so important? Plants and microbes use the shikimate pathway to produce the aromatic amino acids, tryptophan, tyrosine and phenylalanine.²² Because they don't have this pathway, mammals can't produce these essential nutrients, and therefore we depend on plants and microbes to provide them for us. So it is logical that glyphosate, by interfering with this pathway, would lead to a deficiency in these nutrients. Tryptophan is the sole precursor to serotonin, and serotonin deficiency is implicated in a litany of diseases and conditions that are prevalent today, including autism, obesity, Alzheimer's disease, depression, suicide, and homicidal behavior.⁴⁷ Serotonin is an appetite suppressant⁸ so it's hard not to overeat when it is in short supply. If you are disciplined to resist these urges, then you run the risk of depression and Alzheimer's disease, or autism in your children. Serotonin is the precursor to melatonin, the neurotransmitter that regulates the wake-sleep cycle, and melatonin deficiency is also implicated in autism.^{2,39} Tyrosine is the precursor to dopamine,⁴¹ and impaired dopamine supply is the key defect associated with Parkinson's disease. Glyphosate activates an enzyme called phenylalanine ammonia lyase (PAL), which breaks down phenylalanine and releases ammonia as a by-product.³³ Excess ammonia in the blood stream can trigger a cascade leading to encephalitis and seizures.³⁰

AUTISM EPIDEMIC AND ROUNDUP USAGE

Autism is a condition characterized by cognitive and social deficits, which has been alarmingly on the rise in the last decade. Some children seem to be born with the condition, while others develop normally up to a certain point and then begin regressing into autism.⁵⁵ Autism is associated with two comorbidities that may yield hints as to its underlying etiology: disrupted gut bacteria and impaired sulfur metabolism.⁵⁷ A characteristic feature of children with autism is an overgrowth of pathogenic bacteria in the gut, which can lead to neurological defects arising

Glyphosate disrupts the gut bacteria in chickens, cows, and pigs, causing inflammation in the gut along with an overgrowth of pathogenic forms and concurrent loss of beneficial bacteria.

It took a long time before I thought of glyphosate as a possible factor in autism, probably because I believed Monsanto's claims that it is relatively nontoxic.

from exposure of the brain to toxins produced by these bacteria.^{24,56,58}

I have been studying autism for many years, trying to understand the environmental factors that might be causal in the current epidemic in this complex condition. Autism used to be rare, affecting one in ten thousand children. The latest numbers put out by the CDC in March 2013, show one in fifty.⁶ This is an alarming number, and, what is even more alarming is how quickly the number has been rising in recent years. Figure 1 shows a plot of autism rates over the past twenty years alongside a plot of total Roundup usage on corn and soy in the U.S., the two core crops of the processed food industry. It is remarkable how well these two plots line up. The Pearson correlation coefficient is 0.985 (1.0 would be perfect alignment). This plot also demonstrates the alarming increases in glyphosate application that have followed the insertion of the Roundup Ready GMO bacterial gene into the seeds.

Correlation does not necessarily mean causation, but if you can explain logically how A might lead to B, then the likelihood of causation goes way up. It took a long time before I thought of glyphosate as a possible factor in autism, probably because I believed Monsanto's claims that it is relatively nontoxic. This all changed when I

heard a lecture given by Professor Don Huber at the 2012 Indianapolis WAPF chapter conference. His explanation of the effects of glyphosate on biological systems filled in important gaps in the theory I was developing to explain the underlying pathologies in autism.

Most striking, of course, is the disruption of gut bacteria, something that Natasha Campbell McBride has been speaking about for many years at WAPF conferences and in her books.⁹ A recent study involving nearly three thousand children with autism spectrum disorder (ASD) found that a quarter of them suffered from chronic GI problems like constipation, diarrhea, and bloating.³⁷ This subset had significantly higher rates of both anxiety and over-sensitivity to sensory stimulation.

AUTISM, PATHOGENS, AND SULFATE

As Anthony Samsel and I gathered information about glyphosate, we began to see a striking pattern linking glyphosate to specific pathogens like *Clostridia difficile* (*C. diff*) and *Pseudomonas aeruginosa*, which are currently causing a major crisis in hospitals in the U.S. and elsewhere due to their increased prevalence and multiple antibiotic resistance.^{12, 28} *Pseudomonas* is among the very few bacterial forms that can

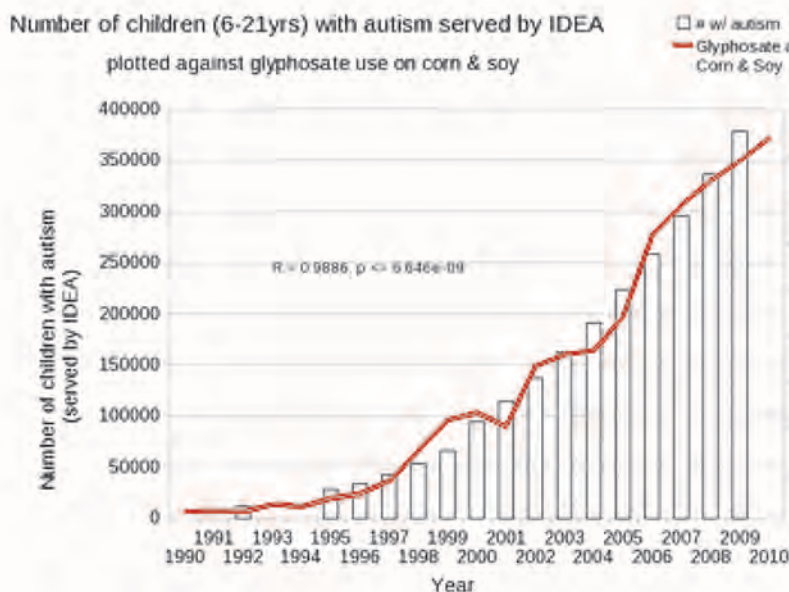


Figure 1: Autism rates in the U.S. school system and of the amount of glyphosate used on corn and soy acreage in the U.S. Figure generously provided by Nancy Swanson: www.examiner.com/article/data-show-correlations-between-increase-neurological-diseases-and-gmos.

metabolize glyphosate. A breakdown product is formaldehyde, a known carcinogen and neurotoxin.⁴³ Formaldehyde may however be preferred over glyphosate as the lesser of two evils. So we surmise that this bacterium is allowed to survive in the gut precisely because it can dispose of glyphosate, but then you have to suffer the consequences of formaldehyde toxicity.

Explaining the overgrowth of *C. diff* requires a digression. My extensive research has led me to believe that systemic sulfate deficiency may be the most important factor in many of the health issues facing us today.^{21, 48} Certainly it is a factor in autism. Autistic children have been found to have only one third as much free sulfate in the blood as their normal peers.⁵⁷ The essential sulfur-containing amino acid, methionine, is a source of both sulfur and methyl groups to the body, both of which are crucial for normal brain development.^{17, 21, 26} Heparan sulfate is a sulfated molecule derived from sugar which plays remarkable roles in regulating ion and nutrient transport as well as molecular signaling cascades, for most of the body's cells.⁵ It's also crucial in brain development of the fetus.¹² A loss of heparan sulfate in the gut lining results in protein leaks into the blood,⁷ which can then induce gluten and casein intolerance, which are common among autistic children. Mice engineered to be impaired in heparan sulfate synthesis in the brain exhibit all of the features of autism.²⁷

C. diff produces a toxic phenol called p-Cresol, which has been identified as a factor present in the urine in association with autism.¹ In fact, as we gathered more data on glyphosate and its effects on plants, we noticed that phenolic compounds, more generally, are produced by both plants and microbes upon exposure to glyphosate, along with the over-production of other compounds with carbon rings called flavonoids. You may be aware that flavonoids in coffee, tea, and brightly colored vegetables and polyphenolic compounds like resveratrol and curcumin are considered to be beneficial for their antioxidant properties. I believe that their beneficial effect may actually be due to their ability to safely transport sulfate, a feature they all possess, and a feature they share with the toxic phenols such as those produced by the pathogen *C. diff*.

SULFATE TRANSPORT AND CARBON RINGS

Extensive prior research has led me to a hypothesis that sulfate transport in the blood poses a special challenge to the body, and that this may be the main reason why there is a plethora of biologically interesting molecules that are typically sulfated when they are transported in the blood, as well as a huge number of sulfotransferases that can attach these sulfates¹⁵ and transfer them from one molecule to another. I suspect that one of the important but heretofore overlooked consequences is that they transport sulfate from a source site in the body such as the gut to a delivery site such as the liver, the pancreas, or the brain, and that this is a crucial part of their function in biology.

Two major classes of these biologically active sulfate-transporting molecules are the sterols (cholesterol, vitamin D₃, DHEA, estrone) and the monoamine neurotransmitters (dopamine, serotonin, norepinephrine). All of these molecules have the interesting property that their biological effects are inactivated when they are sulfated. This is of course beneficial so that they are inert during transport, an attractive feature. But I believe that, more important than this, is the fact that the sulfate that is attached to these molecules is also inactive while being transported. And it might even be the case that one of the most important functions these molecules perform is to transport sulfate! All of these molecules share the property that the sulfate anion is attached to a carbon ring, and the ring distributes the negative charge on the sulfate, changing its biophysical properties in important ways.

What are these biophysical properties? Sulfate is a member of a class of anions called anionic kosmotropes. Other biologically important members of this class are phosphates and carbonates, both of which are also pervasive in biological systems. These three anions are essential for maintaining the water in the immediate vicinity of the cells' plasma membranes in the tissues and of particles suspended in the blood in a structured almost crystal-like "liquid ice" configuration, creating a protective "exclusion zone" (the glycocalyx).⁴⁵ Gelatin desserts are a familiar version of this structured water—it's mainly carbonate that structures the water in this

Autistic children have been found to have only one third as much free sulfate in the blood as their normal peers.

OTHER HEALTH TROUBLES RELATED TO GLYPHOSATE

As if it weren't enough already that glyphosate causes an overgrowth of pathogenic bacteria in the gut, interferes with the supply of critical neurotransmitters to the brain and nervous system, and likely disrupts vitamin D activation, bile acid synthesis, cholesterol homeostasis, and sulfate synthesis and transport, there are several other ways in which glyphosate could do harm. Here I will touch upon four topics: endocrine disruption, liver damage, abdominal obesity, and breast cancer. Additional topics are discussed in our original paper.⁴⁷ For example, glyphosate also chelates important micronutrients like zinc and cobalt.¹⁴

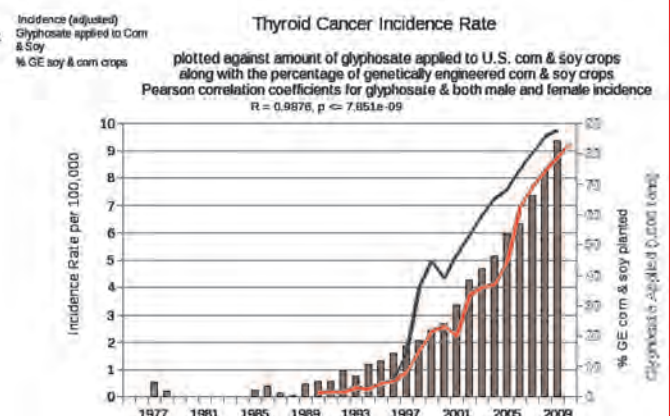
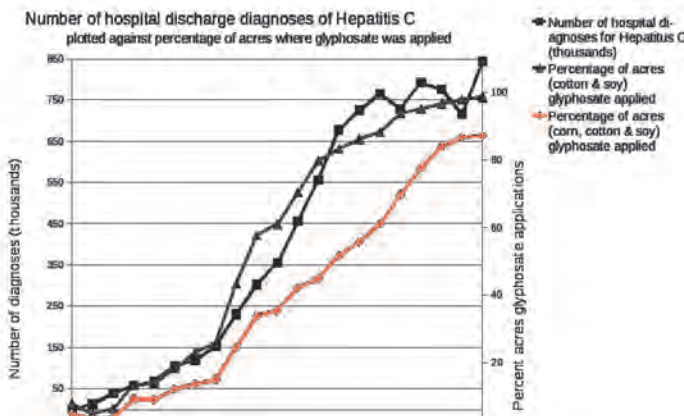
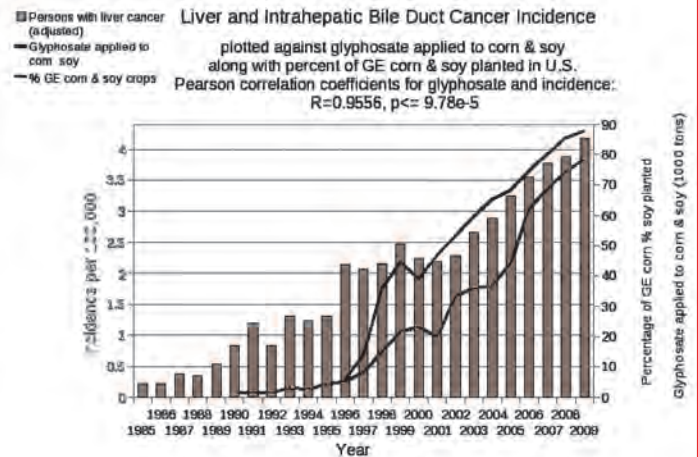
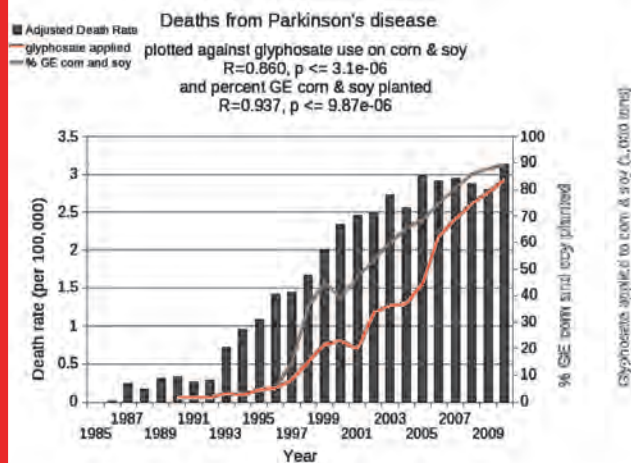
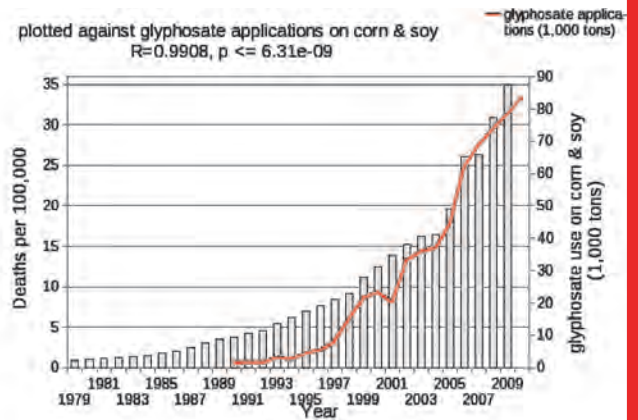
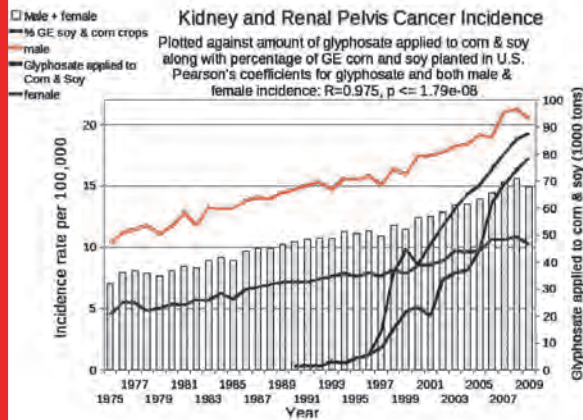
ENDOCRINE DISRUPTION: Glyphosate is an established endocrine disruptor¹⁶ and studies have shown it inhibits aromatase, a CYP enzyme that converts testosterone to estrogen.⁴⁶ Aromatase is synthesized in the testes,³² and this may explain why autism is far more prevalent in males than in females. Autism is associated with aromatase deficiency, and some have attempted to explain autism as a "super male" syndrome on the basis of overproduction of testosterone and insufficient estrogen.³ Retinoic acid is intimately involved in embryonic development. Low doses of glyphosate caused many deformities in frog and chick embryos⁴⁴ due to overexpression of retinoic acid. The enzyme that breaks down retinoic acid is a CYP enzyme, so its disruption would explain glyphosate's effects. One can expect similar effects in humans. Fertility rates have been declining sharply in many countries where glyphosate usage is increasing. Most striking are countries in South America such as Argentina and Brazil. Women in Brazil used to have six children on average, but now the fertility rate is less than that of the U.S. Argentina's fertility rate has been declining ever since 1978. Both Brazil and Argentina produce a significant amount of the world's supply of soybeans—most of which are engineered to be "Roundup® Ready." While it's difficult to sort out the role played by social pressure, it is possible that glyphosate's disruption of aromatase and retinoic acid could be a factor in declining fertility rates.

LIVER DAMAGE: According to our hypothesis, phenols are sulfated in the gut and transported through the hepatic portal vein to the liver in this sulfated form. In the liver, the sulfate is detached and most likely transferred to cholesterol to produce bile acids. Once freed from sulfate, phenolic compounds become fat-soluble and highly reactive, and they can readily cross cell membranes and do damage to cell contents. Phenols have been shown to cause damage to the kidneys, liver, muscles, and eyes.⁴⁰ They induce the formation of organic radicals and reactive oxygen species that can damage lipids and DNA, which explains their ability to induce cancer. However, a much worse problem in the liver is the disruption of CYP enzymes, because the liver contains many CYP enzymes that are involved in detoxifying xenobiotics—both drugs and environmental toxins. With impaired CYP function, these other toxic chemicals linger longer, causing much more damage than they would otherwise. In fact, an inability to break down acetaminophen (Tylenol) has been proposed as a possible factor in autism.⁴⁹ This can easily be explained by glyphosate's potential disruption of the CYP enzyme that detoxifies Tylenol. The inflammation associated with the overgrowth of pathogens in the gut leads to the production of cytokines like TNF- α by macrophages, brought in to keep the pathogens in check. Cytokines induce inflammation, which damages the gut, liver and pancreas. TNF- α has been identified as a key factor in fatty liver disease, which has emerged as a growing public health problem worldwide.¹¹ In the extreme case, liver pathology develops into nonalcoholic steatohepatitis (NASH), which can lead to cirrhosis and liver failure.

ABDOMINAL OBESITY: It is easy to imagine a possible role for fat cells in protecting the liver from damage caused by the toxic phenols. Abdominal obesity can be viewed as providing a way station where sulfate can be transferred from one carrier molecule to another. The toxic phenols can thus deliver sulfate to fat cells in the belly, which then transfer it to a sterol to produce estrone sulfate, a well established "export" molecule from fat cells.⁵² Thus estrone then carries the sulfate to the liver, and the phenol never reaches the liver or the pancreas, where it could have damaged the DNA of cells with important roles. The liver and pancreas are never exposed to the toxic phenolic compound, and are therefore safeguarded from damage. Thus, abdominal obesity becomes a defense mechanism to deflect the phenols towards a tissue where damage is more forgivable, since the fat cells do not perform the kinds of critical metabolic roles that liver or pancreatic cells perform.

BREAST CANCER: One in three women in the U.S. is now expected to develop breast cancer at some point in their lives. A study on rats that were administered food that had been treated with Roundup throughout their lives showed an alarming incidence of massive mammary tumors in the female rats⁵⁰ along with liver and kidney disease in the males, and premature death for both males and females. After our paper was published, a study came out showing that glyphosate, even in trace amounts (parts per *trillion*) could induce breast cancer cells to proliferate; that is, it promotes tumor growth.⁵³

GLYPHOSATE USAGE AND DISEASE RATES



Glyphosate's well established effects in biological systems can plausibly explain many of the diseases and conditions we are experiencing today in epidemic form.

case. Water is by far the most common molecule in our bodies, yet this is hard to imagine given how firm our bodies are. With 99 percent of our molecules being water, it's surprising that we don't just collapse into a puddle! Pollack believes that the main reason our tissues are not liquid is that nearly all the water is maintained in a gelled state by these kosmotropes.⁴⁵

However, the one big exception to this model is the blood. The blood that courses through our veins is definitely a liquid, and if it were to become gelled it would lead to a no-flow situation and a major catastrophe. This, to me, is the key reason why all these biologically active molecules travel through the blood stream in a sulfated form.

Now let's consider what happens when glyphosate enters the picture. Glyphosate is almost certainly an anionic kosmotrope as well. As shown in Figure 2, it contains a carbonyl group and a phosphonyl group, and it doesn't have any carbon rings. When a person takes an overdose of glyphosate in an attempt to commit suicide, a blood pathology called "disseminated intravascular coagulation" (DIC) ensues⁵⁹ and this can easily be fatal. So glyphosate causes an increase in blood viscosity and competes with free sulfate, which also has this effect, for a limited load capacity. This problem would be especially acute in the hepatic portal vein carrying nutrients from the gut to the liver. The liver desperately depends on sulfate to make cholesterol sulfate, which is essential in the synthesis of bile acids, and bile acids in turn are essential for digesting fats. Cholesterol sulfate also plays an important role in the outer shell of LDL and HDL particles, to protect them from reactive agents in the blood (e.g., oxidizing and glyating agents). The "small

dense LDL particles" that are most damaging in heart disease arise because of oxidation and glycation damage that disrupts the lock-and-key mechanism during reuptake in the liver after they have delivered their goods, and therefore prevents them from being recycled. So, insufficient sulfate leads to LDL and HDL particles that are more susceptible to such damage, a key factor in heart disease.

In addition to "jamming the waterways" in blood vessels, glyphosate also interferes with the supply of sulfate carrier molecules that depend on the shikimate pathway. Dopamine, serotonin and norepinephrine are all derived from the aromatic amino acids whose synthesis is blocked by glyphosate. Worse than this, glyphosate also interferes with a class of enzymes called cytochrome P450 enzymes (CYP enzymes for short),³¹ which play many different roles in the body, especially in the liver and the reproductive system.⁴² Certain members of this class are essential for bile acid synthesis. These enzymes are also involved in cholesterol homeostasis and vitamin D activation in the liver, whose disruption will further interfere with sulfate transport, among other problems.

In our recent paper on glyphosate⁴⁷ we argued that the toxic phenolic compounds like p-Cresol that are produced by pathogenic bacteria like *C. diff* actually perform an important service by transporting sulfate from the gut to the liver and pancreas. According to this hypothesis, toxic phenolic compounds are produced because the sterols and monoamine neurotransmitters are impaired in their ability to perform this much-needed service. However, once the phenol drops off its sulfate, it becomes a highly reactive molecule, capable of doing damage to the lipids and DNA in the liver and pancreas, as well as in the gut, as a single phenol is likely cycled around again and again to deliver multiple sulfates to the liver and pancreas, and, whenever it's not sulfated, it's toxic.

SUMMARY

In this paper, I have developed an argument that, contrary to Monsanto's assurances, glyphosate is not a safe chemical for human exposure. On the contrary, glyphosate's well established effects in biological systems can plausibly ex-

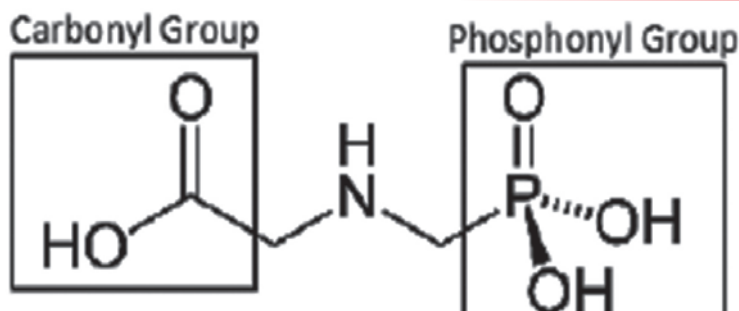



Figure 2: The molecular structure of glyphosate.

plain many of the diseases and conditions we are experiencing today in epidemic form. These include autism, Alzheimer's, obesity, depression, excessive violence, colitis, inflammatory bowel disease, heart disease and diabetes. I now believe that, while several environmental toxicants, including mercury, aluminum, lead, fluoride, nitrates, insecticides and fungicides, are likely implicated in autism, glyphosate may be the single most important factor in the autism epidemic. I believe this not only because glyphosate usage has gone up in step with autism rates, but also because many of the pathologies associated with autism can be explained through glyphosate's disruptive mechanisms.

I also would argue that Alzheimer's disease arises from similar pathologies as does autism, and it might be characterized as "autism for the elderly." Therefore, its recent alarming increases may also be due predominantly to glyphosate.

Glyphosate can also easily explain the obesity epidemic and depression through its disruption of the supply of tryptophan, the sole precursor to serotonin. I have shown how glyphosate disrupts both sulfate synthesis and sulfate transport, and my research has led me to believe that impaired sulfate supply to all the tissues is a common underlying pathology in most modern diseases.

The best way to minimize glyphosate exposure is to adhere strictly to a completely organic diet. Most important is to avoid all the Roundup-Ready GMO crops: corn, soy, sugar beets, canola oil, and cottonseed oil, as well as wheat and sugar cane, due to desiccation practices. Any use of Roundup to kill weeds in lawn maintenance should be abandoned. 

Stephanie Seneff, PhD, is a Senior Research Scientist at MIT's Computer Science and Artificial Intelligence Laboratory. She has a Bachelor's degree from MIT in biology with a minor in food and nutrition, and her PhD from MIT is in computer science. Dr. Seneff is the first author of several recently published papers on theories proposing that dietary deficiencies in critical nutrients such as sulfur, taurine, zinc and choline, as well as insufficient sun exposure, compounded by chronic exposure to environmental toxins can explain many modern diseases/conditions, such as autism, heart disease, obesity, arthritis and

Alzheimer's disease. She has also spoken on these topics in youtube videos as well as in workshops hosted by the Weston A. Price Foundation.

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Elisa Moody, daughter of Louisville, Kentucky chapter leaders Jessica and John Moody, enjoys a 100 percent grass-fed sirloin steak, bone included!

Old World Traditions Thrive in Modern Romania

By Raluca Schachter

“What I like about Romania is its timeless character found in childhood fairy tales. It feeds the soul and heart. This is what Romania does to you after all.”

– Charles, Prince of Wales

Why is Prince Charles buying old, traditional houses in Transylvania, Romania so that he can frequently visit this time-forgotten place? What is so special about it? Would anyone even be able to find it easily on a map?

A country in Eastern Europe bordering Hungary, Ukraine, Serbia and Bulgaria, the largely rural makeup of this nation comes as an unexpected and pleasant surprise to many in search of authenticity and old traditions. Prince Charles, who claims distant kinship with Vlad "the Impaler" Tepes, comes to Transylvania to unwind in a place seen to be refreshingly relieved of unnecessary embellishment and distraction. Many regions in rural Romania are among the most beautifully bucolic and fascinating in Europe.

Despite modern chaotic trends, traditional customs and gastronomy are still alive in Romania, especially in the countryside.

UNBROKEN TIES TO THE PAST

Despite enormous political changes—in the past century sovereignty has transferred from Habsburg emperors to Romanian kings to communist dictators to elected politicians—Transylvania has somehow retained a link to a way of life not so prevalent in Britain or other Western countries since the advent of intensive, industrial farming.

The *Telegraph*, a well known British publication, writes in its Travel section about Transylvania and how British royalty perceive its beauty:

For the Prince of Wales, the region represented a dream come true: a living example of the possibility of a more harmonious relationship between man and nature; a community that, rather than destroying its traditions in the race to modernity, seemed to have preserved and adapted them.

He decided to add his voice to those calling for the protection of what is so special here and to lend it material substance by getting involved in a project that embraced the principles of sustainable tourism, and provided much-needed local employment.

It is easy to criticise. Who is he, a man born into the lap of luxury, to idealise a

simplicity (and poverty) that he can leave behind at will? But coming and seeing it for yourself, it is hard not to feel that perhaps he has a point.

Despite supermarket shopping trends and the toxic, chaotic, hyperactive mode of modern life prevalent in the big cities, traditional customs and gastronomy are still alive in Romania, especially in the countryside.

A growing number of ecological, traditional farmers, traditional farmers markets, organizations and associations, such as Ecoruralis, ASAT (the Association for Supporting Small Agriculture) and ReGeneration, which fight to bring back old traditions and ecological farming, are getting stronger each year. Since the dishonest, toxic practices of the industrial processed food industry have been openly and repeatedly exposed on national television and in online media, educated people are increasingly looking for healthy alternatives and sources of traditional food—something that still resonates well with their origins and recent memories.

There are many opportunities here for farming; the soil is still very rich and clean compared to other countries. In contrast to most of the rest of the developed world, younger and highly educated people are moving from the cities to the countryside to start small organic farming ventures, and their numbers are growing.

RURAL ROMANIAN SCENES



Shepherd and sheep.



Traditional cheese for sale in a cheese shop

ROMANIAN CUISINE

Romanian gastronomy is a diverse blend of different dishes from several traditions with which it has come into contact, but it also maintains its own character. The Romanians share many foods with the Balkan area (in which Turkey was the principal cultural influence), with Central Europe (mostly in the form of German-Austrian dishes introduced through Hungary or by the Saxons in Transylvania) and Eastern Europe. Some others are original or can be traced to the Romans and Dacians and other ancient civilizations.

Quite different types of dishes are sometimes included under a generic term; for example, the category *ciorba*, which is a staple, includes a wide range of soups with a characteristic sour taste. These may be meat, bones and vegetable soups, or fish soups, all of which are soured by sauerkraut juice, or traditional *bors*, a fermented sour drink made from wheat bran.

One of the most common meals is the *mamaliga*, a type of polenta made with cornmeal, served on its own, with a variety of raw cheeses and sour cream, or as a side dish.

Before Christmas, on December 20 (Ignat's Day or *Ignatul* in Romanian), most rural families traditionally slaughter a pig. A variety of foods are prepared for Christmas from the slaughtered pig cured in a unique, old fashioned way. They include:

- *Carnati*: raw sausages that may be smoked and/or dry-cured;
- *Caltabos*: sausage based on liver with consistency from fine (pâté) to coarse;
- *Sangerete*: (black pudding) a sausage prepared from a mixture of pig's blood and fat and meat, grain or bread crumbs, and spices;
- *Toba*: (headcheese) based on pig's feet, ears and meat from the head suspended in gelatin and stuffed in pig stomach;
- *Tochitura*: pan-fried cubed pork served with *mamaliga* and wine;
- *Piftie*: inferior parts of the pig, mainly the tail, feet, and ears, spiced with garlic and served in bone gelatin;
- *Jumari*: dried pork remaining from rendering of the fat and imbued with various spices;
- *Slanina*: smoked raw pork fat. The shep-

herds' traditional "sandwich" consists of a paste made from raw *slanina* mixed with onion and parsley;

- *Lebervurst*: chicken or pork liver pâté.

The Christmas meal is sweetened with the traditional *cozonac*, a sweet bread enriched with nuts and poppy seeds. The common bread eaten daily is traditionally a round, two-pound sourdough loaf. Sometimes potatoes are added to the dough, and baked in stone ovens.

At Easter, lamb is served. The main dishes are *bors de miel* (lamb sour soup), roast lamb and *drob de miel*, a Romanian-style lamb haggis made of minced offal (heart, liver, lungs) with spices and then roasted.

Many people eat a variety of fermented vegetables during fall and winter, such as sauerkraut, green tomatoes, cucumbers, beets, carrots, celery, cauliflower, small watermelons and red cabbage. In the summertime, tomatoes, eggplants, onions, spinach and stinging nettle (in late spring), squash, corn, bell peppers, and a variety of fruits are commonly consumed.

Wine is the preferred alcoholic drink. The Romanian wine industry has a long tradition of over three millennia and the country is the ninth largest wine producer in the world (2009) with an export market that is constantly growing.

A perhaps surprising fact is that Romania is the world's second largest producer of plums; seventy-five percent of the plums harvested in Romania are transformed into the famous *tuica* (plum brandy). An internationally sought-after plum jam or plum butter called *magiun de prune Topoloveni* is a delicious product made in the traditional way with no sugar added slow cooked for a long time.

The amazing biodiversity of the Danube Delta adds the benefit of specific, traditional dishes to the Romanian gastronomy, such as roe salad made from carp, pike or various marine fish; carp in brine; and sour fish soup with fermented *bors*.

RAW DAIRY

Romania is both a big raw dairy consumer and producer, through small, rural, traditional farms. Most of the cheeses are made of cow's or sheep's milk, but also from goat's milk. One of

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Around thirty percent of the Romanian population is rural, which is five times more than the average in the European Union.

the most common varieties is *branza de burduf*, a kneaded cheese prepared from sheep's milk and traditionally stuffed into a sheep's stomach. It has a strong taste and semi-soft texture. Some producers also sell it stuffed in pine bark.

Cas is a semi-soft fresh white cheese, unsalted or lightly salted, stored in whey, and eaten fresh. *Telemea* is a cow's or sheep's milk white cheese, similar to feta. *Urda* is made by boiling the whey drained from cow's or ewe's milk until the remaining proteins precipitate and can be collected.

Although everyone in the countryside enjoys raw dairy foods, many people in the city, unfortunately, rely on the pasteurized industrial variety found in supermarkets. The ecological, pro-peasant movement advocates traditional methods and small farming. The result is that real, non-industrial raw dairy can be found in more farmers' markets in the urban areas now. There is also a growing number of raw milk vending machines.

On Romania's small scale, traditional farms the animals are grass-fed. Hay and a mix of local grains are given during winter time.

Many shepherds lead their flocks to pasture high up on the mountains where the grass is best, especially during spring and summer. In more remote rural areas many people still follow the ancient tradition of moving along with their animals to the best feed available, which is called transhumance. Vertical transhumance

(moving livestock between higher pastures in summer and lower valleys in winter) is often of high importance to pastoralist peoples. The dairy products of transhumance flocks and herds (milk, butter, yogurt, and cheese) often form much of the diet in these populations.

RAW BEE PRODUCTS

Many traditional beekeepers follow this same practice of moving the hives to different regions during summer, offering high-quality, raw, chemical-free bee products, which are sought after internationally.

I'm personally fond of a unique and beneficial bee product found in Romania, which I use sometimes in my practice and recommend to clients with certain ailments: real bee bread. The bees produce this in their hive by mixing the pollen with honey and their own salivary enzymes, after which they coat the honeycomb with propolis. After this, the bees "seal" it with wax and beat their wings to increase temperature and let it ferment. Pretty smart, isn't it? After three months you have real bee bread, a product which is much more nutritive and powerful than pollen. It is especially recommended for liver and digestive problems.

Romania's best antioxidant plant is sea buckthorn. Its berries are often mixed with high quality raw honey and sold by traditional beekeepers as a tonic and immune booster.

ROMANIAN CHILDREN



EXISTING PROBLEMS

Although around thirty percent of the Romanian population is rural (five times more than the average in the European Union), almost sixty percent of agricultural landowners are between sixty and seventy years of age, and this aging population is one of the major problems of Romanian agricultural politics.

Some other problems include the lack of vision regarding agricultural politics, poor implementation of laws, lack of political stability, big differences in the treatment of small and large farmers, poverty, bureaucracy, and lack of access to funds. Some policies favor food bioengineering companies, and inequalities exist in the imports and exports between Romania and other European countries. Environmental problems also exist.

The Common Agricultural Policy Reform, which will be finalized in 2013, represents an opportunity for the European Union and for the Romanian authorities to take a step forward to protect small-scale traditional farming.

Healthy, traditional Romania desires a future where peasants play an important, integral role by providing most of the food for the country. Peasants are the cornerstone of Romanian history and

culture, and their importance should be honored, their agricultural sovereignty protected.

Unlike most European countries, Romanian farmers are split in two categories: peasants and industrial farmers, without many other categories in between. Romania has 2.6 million farmers each owning under 2.5 acres of land and only ninety-six hundred farmers which own more than two hundred fifty acres. Despite this fact, those ninety-six hundred farms receive most of the agricultural subsidies.

Agriculture was for a very long time the biggest force in Romania, with an impressive number of peasant-farmers, and it will depend upon political and national decisions to ensure that the situation continues in the future. But overall, an ideal solution would be to bring the population back to the old, traditional way of eating and renew the high demand for local, unprocessed, healthy food. Educated consumers will eventually help in the process of reducing the number of fake “traditional” and “ecological” producers, who make their way into the Romanian markets these days, by choosing the real producers instead and also staying away from industrial food.

The newly opened WAPF chapter in Romania has set a goal of contributing as much as

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BEAUTIFUL FACIAL STRUCTURE IN ROMANIAN PEASANT GIRLS



SARMALE: A TRADITIONAL ROMANIAN RECIPE

The smell of *sarmale* over the Carpathian Mountains is an aroma to die for! The *sarma* (plural: *sarmale*), a word of Arabic-Turkish origin, refers to a Balkan dish of grape leaves stuffed with rice and raisins. In the Carpathians the *sarma* is transformed by magnificent and heavy Daco-Roman meanings. At Christmas it is a major component of the Romanian Orthodox Christian ritual, which makes it strange and distant from its original formula.

LEAVES:

2 pickled whole white cabbages (sauerkraut)

FILLING:

2 pounds pastured ground pork (or a mix of pork and beef)

3 organic carrots

2-3 tablespoons organic tomato paste

1 chili pepper (optional)

1 cup of organic brown rice (preferably sprouted)

1/2 glass organic wine

1 large onion

a mix of fresh herbs like dill, thyme and parsley

salt and pepper to taste

SAUCE:

lard

bacon

1 glass organic white wine

3 tomatoes in sauce

1 cup tomato paste

thyme, dill, bay leaves, paprika, pepper, salt (optional, since the sauerkraut is salty already)

Step 1: Tend to the cabbage: loosen and carefully separate the leaves, rinse, remove the hard and thick veins. Whatever is unsuitable for filling, chop fine.

Step 2: Rinse the rice well. Chop the onion and herbs (and the chili pepper if your guests can stomach it!), grate the carrots. Mix everything together: rinsed rice, ground meat, onion, carrots, herbs, rice, tomato paste, half glass wine, herbs, salt (not too much, the sauerkraut is salty already) and pepper.

Step 3: Fill the leaves, roll them, and close the ends (not too tightly, because the rice will swell). You can make them larger or smaller, depending on how you like them and how skilled you are. The main thing is for them not to come undone as they boil.

Step 4: Grease a thick earthenware pot with lard. A cast iron pot or a crockpot works fine as well. Arrange cabbage leaves on the bottom, a layer of chopped cabbage and some bacon pieces. Now comes the first layer of *sarmale*, followed by another layer of chopped cabbage, sprinkled with tomato paste, then *sarmale*, until the pot is full.

Step 5: The last layer is chopped cabbage sprinkled with bay leaves, chopped thyme and dill, some pepper and paprika to taste, pieces of bacon and slices of tomato from the sauce.

Step 6: Mix the tomato sauce with the remaining wine, heat it a little, and pour it over the *sarmale*. Cover and cook it on low heat, but not directly over a flame, so that it will simmer and bubble for at least five hours. The juice should reduce by about half, or even two thirds.

Step 7: Serve hot with sour cream, polenta (mamaliga) and a very good wine, if desired.

For more traditional Romanian recipes please visit www.guide2health.net and download the recipe e-book from the homepage.

possible to the list of healthy food resources and raising awareness about traditional diets among consumers.

There are farmers markets in all urban areas, a few associations working as Community Supported Agriculture (CSA) to offer healthy food, and a couple of seed banks to preserve Romanian heirlooms and authentic seeds. It is very important to increase the number of these in order to establish good direct connections between small rural growers and the urban population.



Raluca Schachter is a passionate nutritionist and metabolic typing advisor. She believes in traditional, unaltered food, ancestral wisdom, sustainable farming and living. Raluca was able to naturally reverse chronic health conditions she has struggled with most of her life, and now uses her knowledge to help others do the same. Her health programs and diet plans offer a unique and comprehensive approach to health, where individual nutritional, genetic and biochemical requirements are first met using specific nutrients and foods that each metabolism thrives on. This approach reveals why and how "one diet or nutrient doesn't fit all" and why "one man's food is another one's poison." Raluca has recently moved from California to Romania and established the first WAPF chapter there. She offers her services for both local and international clientele. For more information you can visit her websites: www.guide2health.net (English), <http://chapters.westonaprice.org/snagovrm/> (Romanian) and www.sanatatemetabolica.com (Romanian).

RESOURCES:

1. <http://www.telegraph.co.uk/travel/destinations/europe/romania/9635508/Prince-Charles-of-Transylvania.html>.
2. *Romanian Dishes, Wines And Customs* by Radu Anton Roman.
3. <http://www.agrointel.ro/10965/raportul-comisiei-prezidentiale-pe-agricultura-ponderea-mare-a-agricultorilor-de-pest-60-de-ani-este-ingrijoratoare-cititi-mai-mult-raportul-comisiei-prezidentiale-pe-agricultura-ponderea-mare-a/>.
4. <http://www.ecoruralis.ro/web/ro/Home/Stiri/3/1821>.
5. http://dl.dropboxusercontent.com/u/31352886/CAP%20Report_Eco%20Ruralis_Romanian.pdf.

CHAPTER LEADER MAKING A DIFFERENCE!

In June, members of The Nourished Table, a group started by Diane Smith, White Bear Lake Area chapter leader, visited the Peterson Limousin Beef Farm in Osceola, Wisconsin. The group is bringing this grass-fed, grain-finished beef to White Bear Lake to sell for an affordable price of \$4.99 per pound at the local health food store, Sassafras Health Food Store. The group also connected their children's school with Grass Run Farms to bring them 100 percent grass-fed beef sticks and grass-fed hotdogs.



Says Diane, "It is a start for us to be able to bring local real food to our people at affordable prices, as well as educate them about nutrient-dense foods and what to stay away from!" At their booth at the summer Market Fest for White Bear Lake, they provided sample beef and organic popcorn cooked in coconut oil.

Diane is talking with the Petersons about healthy additives for their summer sausage, brats and hotdogs.

Thank you, Diane, for making a difference, one chapter leader at a time!

Jenna Peterson with visitors Paula Comstock of Sassafras Health Food, Peggy Doran of Margaux's Table, Deb Niemiec, Diane Smith, White Bear Lake Area, Wisconsin chapter leader, and Jess Fleming.

A Tale of Two Mice

By R. M. Dell'Orfano

Long ago, if you had stood at the edge of this deep, dark forest that special day and listened, you might have heard all the merriment beneath its leaves and limbs. Twin mice were born to their proud parents who lived in the hollow of that huge chestnut tree yonder. You can bet that all their field mice neighbors came to celebrate the great event with dancing and singing and feasting on fresh chestnuts and fermented grapes, till they were quite tipsy and tripping over one another while they danced to old country tunes. I hear tell those baby mice were an identical brown color except each had a splotch of white in a different place—one over the right ear and the other, the left.”

I conjured up this tale for my two grandnephews, who were both about eight years old, as we visited the forest preserve on the edge of the historic James Madison Estate in Virginia. Colorful songbirds flew back and forth between tall, stout trees that rose over a hundred feet tall into dense foliage, like the pillars of a green cathedral. Bushy-tailed squirrels chased and chirped at each other around broad tree trunks.

We sat on a sturdy wooden bench and began to hear some critters rustling under the leaves near our feet. My nephews sat on either side of me as they both leaned closer to hear me tell the rest of my story.

Now it happened that one bright and crisp autumn day, schoolchildren were making a trip to the country to pick autumn leaves. Those twin mice were playing on the edge of this very forest, rustling through brightly colored red and gold leaves. They were about four weeks old, which in human terms made them about eight years old, the same age as you boys. They happened upon the children's picnic, and never having seen humans before, they crashed the party. . . uninvited, of course.

The little girls screamed on seeing the two small mice scamper about their picnic lunches. Even the teacher was alarmed enough to stand up and hold her dress tightly about her legs. Two cousins, named Gary and Jason, proudly rose to the challenge and, after much chasing around, captured the two mice by using emptied lunch baskets.

A dispute arose among the boys as to who'd get to keep the two mice. The teacher said, however, that the field mice could be infected with a dangerous disease. So the boys had to let them go. "Be extra careful you aren't bitten," she warned as they carried the covered baskets with the mice to the edge of the forest. On the way back, Gary and Jason planned to ask their parents if they could have mice from the pet store in town.

Now, Gary lived across the railroad tracks in the poorer section of town, for his father was an apprentice butcher, and his mother worked as a homemaker who took care of her family by cook-

ing, cleaning, washing and the like. His father brought home fresh meat and whole-grain flour as part of his meager salary, so his mother was able to cook roasts and bake wholesome breads. As a result, Gary was growing into a strong, obedient lad with a happy-go-lucky disposition. He always finished his homework, was good-natured and kept his bedroom neat and clean.

When Gary asked to have a pet mouse, his mother took him to the pet store and his father made a cage for the new mouse. The boy fed him kitchen scraps everyday. Gary loved to play with his mouse because it was so gentle and affectionate. Whatever he ate, he fed his mouse also, which he named Goody for being such a good mouse.

"Gary, you have such a strong appetite. Where do you put it all? You eat everything I put in front of you," his mother said. "You just keep growing as big and tall as that apple tree we planted out back."

"That's why he gets all A's and wins them softball trophies," said his dad, smiling ear to ear.

His cousin Jason lived in the wealthy section of

town. His father was a prominent banker who was often away on business trips; his mother was a popular professor of food science at the local college and the public school nutritionist. His parents had so much money and so little time for each other that they hired a governess to care for their son. His father had promised to be home for Jason's eighth birthday, but failed to be there. He later gave him a shiny bike instead, but it wasn't the same. Jason became confused, angry, and unruly, perhaps to gain their attention.

So, when Jason asked for a pet mouse, his father bought him one to keep him company.

But Jason began to eat too many sweets from



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Jason's mother figured from her study of nutrition data tables that Jason was getting all the nutrients his body needed, but she noticed that he was often sick.

his being alone all the time, and he fed his mouse Junky the same. The little mouse grew nervous, just like Jason. He always made a big mess of the newspaper lining in the bottom of his cage until it was in shreds, just as Jason's bedroom was always littered with clothes and stuff.

"Jason, enough sugar on your frosted flakes, already. Stop, when I tell you," his mother yelled at him almost every morning before she went to work. "And eat your eggs!"

"But Mom, you know I hate eggs!" he said as he slammed his spoon on the table.

"Now get dressed for school. Hurry! We were late yesterday because of you."

"Do I have to?" he would whine as he slowly walked to his room. "I'm tired."

All that sugar he ate made him sleepy, even in the morning after having slept nine hours. Jason was now eating mostly junk foods, like sugary sodas, frosted flakes and candy bars.

His mother studied the food labels on the

packaged TV dinners, cereal boxes and canned foods she bought, down to the last gram of protein, fat, and sugar. As a teacher of nutrition, she knew the theoretical food content of every morsel she tried to feed him. Jason, however, would sneak a snack from the kitchen cupboards after skimping on regular meals. He craved sweet things, maybe as a substitute for his parents' absent affections. Whatever he ate, though, he was sure to feed to Junky.

His live-in nanny felt sorry for him and prepared whatever he wanted, including pastry doughnuts made with white flour, dusted with powdered sugar and filled with yummy strawberry jelly. These he ate until he could eat no more and, as usual, gave whatever remained to his mouse.

Jason's mother figured from her study of nutrition data tables that Jason was getting all the nutrients his body needed, but she noticed that he was often sick. Jason started to get chunky

A STORY WITH A BASIS OF TRUTH

This children's story is based in part on actual events. In the 1960s, nutritionist Gina Larson's ten-year experimental program at Helix High School in San Diego resulted in statewide honors in academic and athletic contests, and its sports insurance premiums greatly reduced. In the 1970s, a similar program was launched at seventy elementary schools in Fulton County, Georgia, by Sarah Sloan, director of nutrition, achieving similar excellent results. When the principal founders of these two programs died, the school systems promptly reverted to machine-vended snacks and refined foods from government surplus.

Devoted individuals can make a big difference by being a role model for their kids, participating in school lunch programs, and letting their school board members know what wholesome nutrition means. For over twenty-three years, Ruth Rosevear, a teacher in the Cincinnati, Ohio school system, showed the living results of her Goody and Junky experiment to her students, using two rats of the same litter, with Goody fed only good food and Junky fed only junk food. Within six weeks, the difference in their size, weight, and disposition was startling. Fortunately, when Junky resumed a wholesome diet after six weeks, the animal fully recovered.

These experiments at Helix High and in the Georgia school system are presented in the video entitled *Better Food for Better Students*, available from the Price Pottenger Nutrition Foundation, San Diego. Produced in 1986 by R.M. Dell'Orfano with a grant from Ruth Rosevear, it also shows some of Dr. Weston Price's world research travels, investigating the link between modern diets and dental cavities.

For those interested in scientific evidence, read "Childhood Violence: Is Malnutrition the Cause?" an article by R.M. Dell'Orfano in *Wise Traditions*, Summer 2002. "Unhealthy mental functioning, accompanied by macabre paranoid perceptions and hallucinations, can result from a sudden drop in blood sugar after limiting breakfast to only a soft drink. Such seemingly unimportant and innocent indulgences, practiced on a daily basis for an extended period of time, could easily trigger a tragic shooting on some school campus."

Dr. Weston A. Price discovered that proper nutrition can reverse certain genetic defects that pass from generation to generation, backed with pertinent photos and detailed observations in his book, *Nutrition and Physical Degeneration*, available from the Price-Pottenger Nutrition Foundation.

too, so his mother worried about him, not knowing what might be causing him to gain so much weight. His mouse Junky grew chubby too, for he was fed exactly what Jason ate. Both Jason and Junky became sick, irritable, and grumpy.

One day Jason howled in pain when Junky bit his finger as he fed him. Jason began to fear and hate his little mouse, and began to tease it with a wooden pencil, jabbing it with the eraser end and then finally with the sharpened end. By doing this, he turned his friend into an enemy.

The grandnephew sitting on my left interrupted my storytelling to ask, "Uncle, you mean Jason was poking Junky with the pencil point?"

"Yup, Jason was turning real nasty, and so was his mouse."

Now, given that Gary and Jason were cousins, when Christmas came round that year, exactly three months after they got those two mice, the two families celebrated together. Of course, the party took place at the banker's mansion. It seems some rich folks can't get over being uppity proud, which makes it mighty difficult being seen in the poorer section of town. So, because they had lots of money, they hosted a big party for all their family and friends.

The cousins were allowed to show the guests their caged mice in the garage. Goody and Junky were almost fully mature at this point. What was amazing to all the family was the difference in size between Goody and Junky. Though Junky was chubby, he was half the length of Goody from nose to rump. Everyone knew that the two mice should be the same size and shape, since they came from the same litter at the pet shop. The two boys stood by their cages, which made obvious the similarities between them and their mice. Gary was tall, lean and calm, just as Goody was long, sleek and quiet. Jason was short, chunky and nervous, just like Junky. Gary could safely hold Goody in his hands without gloves, but Jason would not dare try because he knew Junky would bite him."

Now the grandnephew sitting on my right asked a question before I could continue my story. "Uncle, do you mean that every pet mouse fed good food won't bite?" he asked.

"Good question! A well-fed mouse might bite you anyway, just to protect itself or its young, but especially if it's not fed well, like Junky, who got nervous and nibbled at things just to find what's missing in his diet."

"What happened when they saw one big and the other small?" said the nephew on my left.

Well, Jason's mother asked her son and her nephew Gary, 'Were these mice the same size when you got them?' Together, they nodded yes. She got mighty curious about that. After much thought, she finally concluded something was terribly wrong with Jason's diet, because her nephew Gary was a full head taller, seemed stronger and looked healthier than Jason. Not only that, she noticed Gary was energetic but calm, just like his mouse Goody, while Jason was sluggish but nervous, just like Junky."

I felt another tapping on my left arm. "Uncle, is that the reason I'm shorter than my cousin?"

"Oh, not necessarily. I'll bet your parents feed you good food, alright."

He nodded, "Yup, and I eat all my vegetables too. So, why is he smarter than me?" he asked, pointing to his cousin. "I work hard at my homework, but he gets better grades in school without even trying. And I get sick a lot, so my parents have to take me to a doctor. But he never gets sick."

"And what did the good doctor say?"

"I have to take medicine every day."

"When we get back home, I'll quiz your parents and maybe we'll find some answers."

His healthier cousin urged me to continue with my story. "Uncle, what happened next?"

Well, Jason's mom had to take him to a doctor, too. The doctor said he was what we adults call "pre-diabetic." Funny thing is, his busy doctor didn't ask a word about Jason's diet, to discover why his blood sugar was so high.

Jason also had difficulty breathing from what we call asthma and the doc prescribed a drug for that, which he had to take every day. Oh, and I forget the name of that stuff to calm him down at school and help him focus his attention.

Good thing Jason's mother was well off, because all this medicine was expensive. His

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mother had no choice but to put him on all those drugs. Otherwise, Jason would not have kept up with his schoolmates.

It was not long after that, Jason's mother and father—with prideful hesitation, mind you—visited the home of Gary in the poorer section of town. Jason's mother needed to discover the secret of Gary's diet without showing her ignorance. Maybe her son Jason would do better if he could eat the way her nephew Gary did. After all, as a banker's wife she was wealthy and could feed her son anything, whatever it cost.

What she learned as they sat at dinner astounded her. She noticed everything was homemade, nothing fancy, but delicious: a simple meal of pease porridge, bone marrow stew, and fresh-baked, whole-grain bread with butter. She became convinced these homemade foods were what made such a big difference in her nephew's health.

After visiting her sister's home, Jason's mother did a lot of thinking. She decided to make big changes in what her family ate. First thing to go was all the junk food. Jason, feeling it was the end of the world, fumed and whined, for habits are difficult to break. She threw out all the cupboard goodies, and made sure that none was hidden elsewhere.

Then she hired a cook with strict orders to shop at farmers markets, to buy only wholesome foods for her family, and make a big batch of yogurt from raw certified milk every day. She instructed their gardener to build redwood planter boxes for lots of fresh vegetables. Every other day Jason's chore to earn his allowance was to water, weed and remove pests like horned tomato worms.

Before long, they were enjoying fresh greens with ripe juicy tomatoes and raw sweet peppers. It was no surprise either that Jason's father showed up for meals more often and actually talked with him about school, sports and other stuff. The whole family, including the cook and the gardener, began to look and feel better. Many of their aches and pains began to go away. He saw his parents holding hands while walking together, and you know what, he even saw them hugging and kissing for a change. They started ballroom dancing again, and people were amazed how well they looked.

Every Saturday morning, his father took him to hit some softballs and Jason thought maybe he would practice for the school team. His ailments began to fade away as he lost weight, so the doctor gradually took him off his drugs. In fact, Jason started growing taller. He could

OASIS AT BIRD-IN-HAND, AN AMISH ORGANIC FOOD CO-OP HOSTS INTERNATIONAL CHEFS

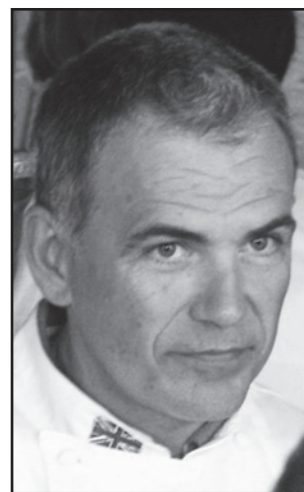
In July, twenty-two of the worlds most prestigious chefs attended a dinner in an Amish barn in Lancaster County. The chefs included the White House executive chef and the head chef to the Queen of England. The dinner was hosted by Amish families associated with Oasis at Bird-in-Hand, an Amish organic food co-op.



Host LeRoy Miller addresses the chefs.



Chef Cristeta Comerford: White House executive chef to President Obama and President Bush.



British Chef Mark Flanagan: Chef to the Queen of England and the British Royal Family.

focus better and could play team softball for the first time. His teammates were surprised that he could now run all four bases without gasping for breath.

Meanwhile, his grades got better. His teachers were amazed when his mother, the school nutritionist, explained why. They were so impressed that they convened a PTA meeting at his elementary school where all the parents voted to improve the cafeteria menu with beef stews, whole grain breads, yogurt, fresh fruits (without syrup), and both raw and steamed vegetables. They also started a big school garden where Jason proudly showed the other kids what he had learned at home.

Even his mouse Junky grew until he was almost the same size as Goody. He no longer gnawed at plastic cups or nipped Jason's fingers hoping to find the missing nutrients in his diet. He especially liked hard-boiled eggs and stood on his hind legs to beg. He looked cute when Jason played with him. Better nutrition made the mouse's fur look thick, shiny, and beautiful. It was so playful and fun to watch that all the kids in the neighborhood came round to see Jason and his pet. Soon they had pet mice of their own.

Gary and Jason had decided to free their pet mice, because after a year their mice had grown

old. The boys took their pet mice to the edge of the forest where the picnic had been held almost a year ago. The mice showed some hesitation on leaving their cages, but eventually they ventured forth together, sniffed the fresh spring air with upturned noses, flipped their long tails, and finally scampered off together under the forest leaves, never to be seen again. Gary and Jason were sad to see them go, but happy that they would at last be free to live and play wherever they wished.

"Gee, Uncle, do you think we could catch us some field mice, too?" one nephew asked, as he studied the vast leaf blanket on the forest floor for signs of field mice. Only squirrels scurried about.

"What happened to them after they ran into the forest?" asked my other nephew.

"We may never see those very same mice again, but we can be sure in the wild, they ate very well, and were happy. But all this happened a long time ago. Maybe, if you are good boys during the rest of the year, Santa Claus will bring each of you a pet mouse. Would you like that?"

"Yes, yes," they chorused with delight, as we started back to the James Madison mansion.



Meanwhile, his grades got better. His teachers were amazed when his mother, the school nutritionist, explained why.

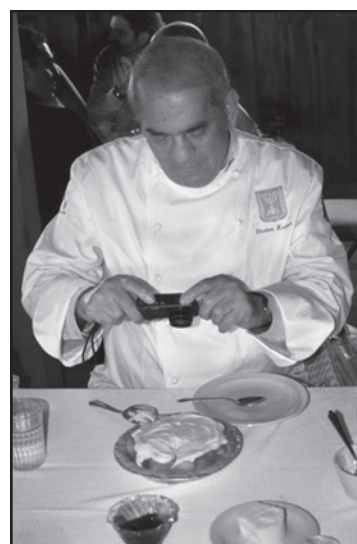
OASIS AT BIRD-IN-HAND, AN AMISH ORGANIC FOOD CO-OP HOSTS INTERNATIONAL CHEFS



Amish grandmothers serve grass-fed beef pot roast and vegetables.



A choice of raw milk or pasteurized drinkable yogurt from Oasis at Bird-in-Hand for Chef Isto Tahvanainen, chef to President Sauli Niinistö of Finland.



Israeli chef Shalom Kadosh photographs the peach pie.

Farm and Ranch

THE BATTLE FOR BACKYARD CHICKENS: City Councils Squawk About Traditional Practice By Christine Ross

Picture having fresh, tasty eggs every morning and a friendly, funny chicken to deliver them. These days, you'd be the envy of your neighbors.

At least, some of them. Not everyone is happy about the latest national movement: backyard chickens.

THE POLITICS OF BACKYARD CHICKENS

For most of human history, people have kept backyard chickens as pets, for food and as a source of income. Many city councils, such as Chesapeake, Virginia are legalizing urban chickens again. Unfortunately, Virginia Beach, Virginia, is not yet among them.

Lisa Dearden, a Richmond, Virginia backyard chicken activist said, "Backyard chickens are an election issue." She also said that city councils are being voted out across the nation for their continued refusal to allow urban chickens.

Tracy Okroy, a hairstylist in Virginia Beach started raising backyard chickens in 2011. She loved chickens and their eggs, and got some from a client. At that point, quite a number of Virginia Beach residents had joined the nationwide trend of having backyard chickens.

Nevertheless, someone filed an anonymous complaint against Okroy in early 2012. Code Enforcement for the City of Virginia Beach said she must stop keeping chickens in a residentially zoned area. Okroy soon became known across Hampton Roads, Virginia as the "Virginia Beach Chicken Outlaw."

NO REASON FOR COMPLAINT

When this writer visited Ms. Okroy's home, there was very little smell from her well-kept chicken coop. Tracy explained that the chicken waste does not smell as long as you keep the coop clean. In addition, the chickens are quiet. Like most backyard chicken enthusiasts, Okroy does not keep roosters.

Andy Schneider of Georgia is the author of *The Chicken Whisperer's Guide to Raising Chickens*. He speaks across the nation and on his radio show "The Chicken Whisperer" in support of backyard chickens.

Sometimes people object to backyard chickens because they are said to be "noisy and messy." When asked about this, Schneider said, "First, I ask them how they know that chickens are noisy and messy? Many who claim that chickens are noisy and messy have never even kept chickens!"

AN AMERICAN TRADITION

Up until the 1950s and 1960s, many Americans kept backyard chickens. As mass production of poultry increased, backyard chicken ownership fell into decline.

In recent years, even celebrities like Martha Stewart and Tori Spelling have made owning chickens fashionable again. With increasing awareness of genetically modified food, arsenic in chicken feed, and cruelty to poultry, many Americans are returning to the tradition of backyard chickens.

Not only that, chicken waste makes great fertilizer. Some people raise backyard chickens for that reason alone.

Although it can be expensive to own backyard chickens, the superior nutritional value of home-raised chicken eggs makes it worthwhile. You can taste the difference between factory-raised eggs and those from your own chickens.

People want to know what's in their food. And they want to make sure that it contains no antibiotics, growth hormones, or pesticides. The best way to do that is to grow it yourself.

Besides, chickens are fun and hilarious pets. They are a great way to teach children about where food comes from and about responsibility in caring for animals.

For most of human history, people have kept backyard chickens as pets, for food and as a source of income.

WHAT TO CONSIDER

If you want to keep backyard chickens, check with your local city and county ordinances. The City of Virginia Beach prosecuted Tracy Okroy under zoning and criminal violations in 2012 and 2013. If someone reports you to the authorities, that could happen to you.

There are other factors to consider when keeping backyard chickens. You will need to clean the chicken coop often. It will take many months of feeding baby chicks before they can produce eggs.

Hens can only produce eggs for two to three years. In the past, people simply slaughtered the chickens that no longer laid eggs. Nowadays, people are reluctant to slaughter a pet and eat it.

What about roosters? Most urban homesteaders don't keep them to avoid annoying the neighbors.

That in itself creates problems because nature provides us with equal numbers of male and female chicks. Determining the sex of the chick can be a challenge until they are four months old.

Chickens are social creatures and must live with other chickens for companionship. Therefore, do not buy only one chick.

In addition, chickens are vulnerable to predators. Keeping them in coops will protect them.

Chickens are also vulnerable to infections that can wipe out entire flocks. For that reason, new chicks must be quarantined from the rest of the flock until they are shown to be disease-free. Fortunately, we do not have avian flu in the USA and therefore there is no fear of getting it.

OTHER BENEFITS

In addition to providing companionship, eggs, meat, and fertilizer, chickens are a natural form of tick control. Billy Joel and Christy Brinkley commissioned a study on chickens to see whether they could control the ticks that

spread Lyme disease. Indeed they could, the study found.

When caught early, Lyme disease is easily treated. Sadly, once it becomes chronic, Lyme disease can cause death, insanity, Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis, multiple sclerosis, and paralysis. Chronic Lyme disease is very difficult to treat and does not always respond even to intravenous antibiotic treatment.

The Virginia Department of Health has pointed out on its website that prevention is the best method of treating disease. The VDH sent a letter to all Virginia physicians telling them that Lyme Disease is now "endemic" in Virginia.

The other advantage of having backyard chickens is the reduced chance of spreading salmonella through small flocks. Since the pens are easier to keep clean than the huge henhouses in commercial operations, there is less chance of spreading disease or having it turn up in your eggs.

Lisa Dearden also said, "The economy has contributed to the backyard chicken movement. I think there have been other things influencing the movement, too. The movies *Food, Inc.*, and *FRESH* have exposed the industrial food system to the masses, and people were horrified to find out that commercial poultry is

so inhumanely raised. So, many have started with raising chickens for a cleaner, healthier source of eggs, and in some cases meat."

IN THE COURTS

This past spring, the Rutherford Institute filed a zoning appeal to the Virginia Supreme Court on behalf of Tracy Okroy. The Supreme Court refused to hear it.

On May 16, 2013, the City of Virginia Beach prosecuted Tracy Okroy in criminal court. Fortunately, her attorney, Gary Byler, got the case dismissed. When interviewed on local TV, Byler said "The City of Virginia Beach has a history



Tracy Okroy with her backyard chickens.

In addition to providing companionship, eggs, meat, and fertilizer, chickens are a natural form of tick control.

of overreacting in these matters."

John Whitehead of The Rutherford Institute said: "Burdensome rules, regulations and inspection requirement—many of which are indecipherable except to lawyers and bureaucrats—now impede the ability of health-conscious individuals and small farmers to raise and produce their own food free of corporate contaminants. This case speaks to a growing problem in America today, namely, the over-criminalization and over-regulation of a process that once was at the heart of America's self-sufficiency—the ability to cultivate one's own food, locally and sustainably."

Virginia Beach City Councilman Bill DeSteph said that the City of Virginia Beach is inviting public comment on backyard chickens in an online poll at www.vbgov.com. After the study period and discussion, legislation will be proposed. But it could take years to legalize backyard chickens, Lisa Dearden said.

When asked whether city councils are changing their minds about keeping chickens, Schneider said, "Yes, without a doubt. Cities all across the country are changing their laws to allow backyard poultry. When approached with the idea, more cities seem to approve them than ban them." ☺☺☺

FOR MORE INFORMATION:

www.chickensandyou.com

www.chickenwhisperer.net

www.viriniabeachchickenoutlaw.com

www.rutherford.org

<http://leg1.state.va.us/cgi-bin/legp504.exe?000+coh+3.2-6024+700176>

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<http://www.takepart.com/article/2012/10/15/arsenic-rice-lawsuit?cmpid=foodinc-fb?=&tp=ptnr-deliciouslyorganic>

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<http://backyardeggs.wordpress.com/2010/07/18/the-truth-about-arsenic-in-your-eggs/>

OASIS AT BIRD-IN-HAND, AN AMISH ORGANIC FOOD CO-OP HOSTS INTERNATIONAL CHEFS



Four sturdy chefs on barn benches.



Twenty-two chefs gather to say good-bye.

Homeopathy Journal

TAKING ON THE BIG GUNS:
HOMEOPATHIC SUPPORT FOR PESTICIDE EXPOSURE
By Joette Calabrese, HMC, CCH, RSHom (NA)

Nineteen eighty-eight was an eventful year for me. I was pregnant for the second time. One day while gardening in front of our home in Buffalo, New York with my nearly three-year-old son at my side, he suddenly looked up and pointed to an immense truck slowly creeping down our street with a colossal cannon affixed to the flat bed. The cannon was aiming a vile substance that smelled like a mix of dog dew and formaldehyde ripened in moldy carpet on a diagonal towards the trees on our street . . . and inadvertently directly into my neighbor's and our bedroom windows.

Instinctively I plucked up my son, raced into the house, slammed down the bedroom windows, took a deep gulp of air, and called the Buffalo City Parks Department. I forced my composure into a syrupy, "What is being sprayed at the elm trees on my street today?" "Oh, just some Sevin," was the nonchalant response. Let me mention here that as soon as someone begins his reply to a direct question that demands a serious answer with a deflective "Oh, just. . ." my suspicions are aroused.

I immediately contacted the Department of Environmental Conservation, environmental protection organizations, city council members, and the manufacturer of the chemical carbaryl, which is sold under the brand name Sevin. I collected information on safety studies and the material data safety sheet, and set for myself a plan of action.

What I discovered on the second page of that safety sheet alarmed me. Certain words jumped off the page that verified my initial fear and permanently established my distrust. I learned that animal experiments had shown reproductive problems in females from exposure to carbaryl, including birth defects in beagle dogs and an increased rate of miscarriages in monkeys.

I spent the rest of the day on the phone

scheduling meetings with city council members who might take an interest in such an issue. Several members were indeed concerned, and I was ready to meet with the first one the following morning. This meant that I wouldn't have to go it alone in my plan to have the spraying halted, and the city council might take it from there. Well, sort of.

Buffalo City Hall is a grand Art Deco-style structure of thirty-two floors and I looked forward to gazing on the spectacular architecture while waiting to make my first appeal to a council member. It was 8 a.m. only a day after the tree spraying event and city hall employees were filing into the building. I was instructed to take a seat in the waiting room on the eighth floor.

But while waiting I began to feel dizzy, breathless and jittery. By the time I entered the council member's chambers I was certain I couldn't sit through our scheduled meeting and I apologized that I was feeling uncharacteristically odd, almost as though I had inhaled poison. "Oh," said the council member. "I should have mentioned that the entire floor is sprayed the second Friday of every month for ants and cockroaches, and they came in last night and doused this floor. Here, let's open a window."

But it was too late. I was feeling too strange to speak with him. We arranged another date and I staggered home. The remainder of that day I could do nothing but endeavor to catch my breath in a state of steady anguish.

The next day, I miscarried. Was it coincidence? Or was it the two insecticide exposures within days that signaled my body to let go?

If you have ever experienced the loss of a pregnancy you understand how uprooting this trauma can be. It took weeks for my emotions to settle, but when it was over, the experience had set my jaw. I became firm in my resolve to prevent my city from spraying lethal chemicals

What I discovered on that safety fact sheet alarmed me and verified my initial fears.

It is possible that the use of the correct homeopathic remedy may offer some immunity to these toxins in subsequent exposures.

not only without warning, but under any and all circumstances.

Once I recovered, I spent a great part of most of my days meeting with the staffs of local hospitals, public schools, college campuses, churches, stores, and city government agencies to put a halt to pesticide applications inside and outside public buildings in Buffalo. I met with the local newspaper and TV stations and rallied friends and neighbors.

Even my brother, a professional song and jingle writer, joined in. The catchy jingle he wrote, warning families against using pesticides, aired on the radio and was a convincing tool to warn local hospitals and businesses of the dangers of lawn chemicals.

My crusade was time-consuming yet exhilarating because finally, within a year, a mayoral committee was formed to address the problem. Entomologists from Cornell and Ohio University, local business leaders, and the city's flagship hospital convened with myself, the mayor's office and city council members in regular meetings.

Buffalo made national news as the first U.S. city to take a stand against the use of pesticides, all initiated by one mother, who knew that the widespread use of pesticides was at best questionable, and at worst caused miscarriages.

During this time I was also studying homeopathy and I became keen on knowing how to

address toxic responses via this medical paradigm. Homeopathic remedies are often originally derived from toxic substances and made into curative remedies via dilution. The idea that a toxic substance can foster a curative response is the very foundation of homeopathy. So couldn't it then cure such responses to gross toxins such as pesticides?

Why certainly! In essence this means that the toxin acts as an antidote. Indeed the very symptoms that the poisoned victim experiences are the symptoms associated with the remedy. So if the warning signs include restlessness, anxiety, racing mind, and weakness, the remedy that would likely be useful would be *Arsenicum album*. As long as the symptoms match, the remedy will likely address or stimulate a person's body to respond by eliminating the symptoms and resolving the illness. This does not mean that these symptoms are covered up, such as when one uses a drug like Tylenol to suppress pain. Instead the homeopathic remedy conveys a rallying of the body to eliminate the harm.

Throughout the years of working with students and clients who are chemically sensitive I have witnessed that not only are these remedies pertinent to the event at hand, but in some cases even for exposure that dates back months or even years. Additionally, it is useful to note that in many cases the symptoms are less significant

LIVING A HOMEOPATHIC LIFE

Nat mur 6x was the remedy I should have used after sniffing Sevin in my front yard. It is useful when symptoms have not yet appeared but the potential for them to do so is evident. It would have been gentle enough to give to my son as well. *Arsenicum album* would have made a good choice to address my breathing difficulties and neurological symptoms in and after my city hall experience. Because of the intensity of symptoms, I should have taken *Arsenicum album* 30C every fifteen minutes. Then as the symptoms abated (a sign that the remedy was acting) I would not have repeated it unless and until they returned. This could have been as long as hours or even days later. One practical aspect of homeopathy is that both *Nat mur 6x* and *Arsenicum album* 30C can be used intercurrently, each acting on behalf of the curative action behind it. The way this is done is to take one remedy on the hour and the other on the half hour, alternating them until the abatement of symptoms makes it clear that it is time to stop. Sadly, I thought of it too late. Indeed, when we're in a crisis, it's often too thorny to identify what is occurring and have the composure to take action.

This is a reason not only to know homeopathy down cold, but to teach our children so that they can aid the family when in need. In fact, this thought was the impetus that awakened me to the importance of homeschooling my children. When I finally made the decision to do so, I eschewed the politically correct science curricula and used homeopathy medical books instead of conventional text books. This gave my children the wherewithal to help me treat fowl cholera in our small flock of chickens, a raging infection on our goat's ear, and our abscess-riddled cat. They also gained an inherent respect for the blessing of robust health; curing our family, pets and livestock became our family's tradition. It infused responsibility, compassion, and self-mastery into my children's education, and taught them as well how to live a classical life of less medical dependency and more enjoyment of life itself.

in subsequent exposures when homeopathy is employed. Hence it is possible that the use of the correct homeopathic remedy may offer some immunity to these toxins in the future.

Here are three significant remedies to consider when your family (pets included) has been exposed to such chemicals:

1. If there's no actual immediate reaction to the pesticides, a well-known remedy of repute for providing generalized protection from poisonings is *Natrum mur* 6X. Take it every four to five hours for a few days after exposure.
2. *Arsenicum album* 30C is the remedy of choice if the exposure has caused a response such as anxiety, diarrhea, breathlessness and weakness. Even if just one of these symptoms is apparent, this remedy could be a good match. *Arsenicum album* is made from a strong poison, arsenic, but like all homeopathic remedies it has been diluted to eliminate its toxic properties and render it a healing powerhouse.
3. *Carbolic acid* 30C has a reputation for aiding those who experience a systemic reaction of a more serious nature. Years ago, a friend of a friend of mine, a chemical engineer, went into an anaphylactic reaction

after exposure to formaldehyde. After a few doses of *Carbolic acid* 30, she showed signs of recuperation within minutes and fully recovered within hours.

I'm reminded that Margaret Mead once said, "Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has."

And Mark Twain, in an interview in *Harper's Bazaar* in 1890, said, "The introduction of homeopathy forced the old school doctor to stir around and learn something of a rational nature about his business. You may honestly feel grateful that homeopathy survived the attempts of the allopaths to destroy it." Unfortunately Mark Twain wasn't around to witness this actual occurrence in the U.S. in the 1940s and even today. That's why after completing my work on the pesticide ousting in Buffalo, I set my gaze on getting homeopathy to families.

In a perfect society, we would be able to prevent bellicose toxins from waging war on our families and knowing the precise homeopathic treatments designed to shield us. But life's not like that. Well, except for now. This is just one of the countless reasons why I keep my remedy kit close at hand and my homeopathy knowledge current. ☺☺

Joette Calabrese, HMC, CCH, RSHom (Na) is a classical homeopath who melds homeopathy with WAPF principles. She meets with folks on Skype to help them return to health via these methods. She also teaches families how to use homeopathy in her virtual classroom in her popular webinars, books and CDs. She is an expert presenter at WAPF conferences and throughout the U.S. To learn more about how homeopathy might fit your lifestyle, contact (716) 941-1045 or www.JoetteCalabrese.com for a free fifteen-minute conversation with Joette.

MAKING SAUERKRAUT IN CHILE!



Llamas at Valle Chacabco.



Ann Oldman, Coyhaique, Chile chapter leader, teaches sauerkraut making at Valle Chacabco, soon to be a national park.



Delicious fruits of their labors.

All Thumbs Book Reviews



***The Paleo Solution,*
The Original Human Diet
by Robb Wolf
Victory Belt Publishing**

Mentored by Loren Cordain, author of *The Paleo Diet* (published in 2002), Robb Wolf is today's leading spokesman for the paleo diet. His interpretation of the diet in *The Paleo Solution* (published 2010, eight years later) allows lean meat, seafood, fruits, vegetables, nuts and seeds, and "healthy fats," namely fats rich in omega-3 and monounsaturated fatty acids. Foods to avoid include all grains and legumes, all dairy foods, processed food and sugars, starches and alcohol. (If you have autoimmune disease, you should also avoid eggs, nuts and seeds, tomatoes, potatoes, eggplant and peppers, he suggests.)

This diet is low in carbs, low in saturated fat, and high in protein, with protein comprising up to 30-35 percent of calories. "Protein consumption beyond this point for an extended period of time," he says, "results in a condition called rabbit starvation, . . . a disease characterized by muscle wasting, lethargy, diarrhea and eventually death if one relied too heavily on lean game animals such as rabbits." But Wolf's diet does precisely that—it leans heavily on lean animals, domestic animals, to be sure, but nevertheless lean. This book is all about lean, lean, lean—just a teaspoon or two of olive oil for cooking, no butter on the vegetables, no sauces on those large portions of lean meat.

If Wolf knows about rabbit starvation then he must know about the work of Arctic explorer Vilhjalmur Stefansson, who described rabbit starvation and who noted that primitive peoples never ate lean meat. According to Stefansson, the diet of the Eskimo and North American Indian did not exceed 20 percent protein, with the remaining 80 percent of calories, as fat. The cure for rabbit hunger was to eat lots of animal fat. Weston Price noted that these northern diets were particularly rich in vitamin A, from organ

meats, fish heads and seal oil. But apart from egg yolks, there is no source of true vitamin A in Wolf's diet—the book includes not one recipe for liver or other organ meat.

Wolf's paleo diet poses two major dangers. First, the high protein content, along with vitamin D supplements (recommended to provide 2,000-5,000 IU vitamin D per day), can rapidly deplete vitamin A. When vitamin A is depleted, we are vulnerable to all sorts of medical conditions, particularly autoimmune disease. Wolf sees autoimmune disease as a widespread problem without appreciating the irony of vitamin A deficiency brought on by a diet too high in protein and vitamin D.

The second danger is a deficiency of saturated fat. Our bodies need saturated fat in large amounts—to build cell membranes (which need to be at least 50 percent saturated to work properly) and to support hormone formation and the immune system. The fats in Wolf's diet are mostly monounsaturated, with saturated fats comprising a measly 18 grams (just over 1 tablespoon) per day. When we do not get enough saturated fat in the diet, the body can make these from carbohydrates—but carbs are not allowed in the diet either. The result is either severe deficiency in saturated fat (for those with will power to stay on the diet) or bingeing and splurging on refined carbs and foods rich in saturated fat, like chocolate and ice cream.

Fat does not make us fat, Wolf insists, and we should not be afraid of it. Saturated fats have gotten a bum rap, he says, but the number one message in his book is to eat lean meat—lean beef, lean hamburger, lean pork, lean seafood, and chicken meat but no skin. No added animal fat is allowed on this diet. The main fatty acid in paleolithic diets, he insists, was monounsaturated.

After raising our expectations about saturated fat, he then demonizes 14-carbon saturated palmitic acid, which he claims may cause heart disease by raising LDL cholesterol. But, he

If Wolf knows about rabbit starvation then he must know about the work of Arctic explorer Vilhjalmur Stefansson, who described rabbit starvation and who noted that primitive peoples never ate lean meat.

All Thumbs Book Reviews

notes, new research has shown it to be vital to forming new memories and accessing long-held memories. "A paleo diet supplies an adequate amount of palmitic acid for optimum cognitive function while limiting the intake to levels that are not harmful to the cardiovascular system." Reference, please?

Saturated fat accounted for 10-15 percent of total fat intake in most paleolithic populations, insists Wolf, with very low amounts of palmitic acid. As he is familiar with the work of Stefansson, he should know that primitive peoples hunted animals selectively, preferring the older animals, which had a buildup of hard fat along the spine. This fat buildup could weigh up to eighty pounds; along with the highly saturated kidney fat, it was rendered and saved. Lean muscle meats were often thrown away; fat and organ meats were preferred.

Eighteen-carbon stearic acid is safe, says Wolf, but then goes on to warn, "A high intake of saturated fats, in conjunction with a high intake of dietary carbohydrate, is a hell of a combo for an early grave. Wolf claims that the combination causes elevated insulin levels leading "to a shift in the LDL particles to a type that is small, dense and easily oxidized." Actually, while saturated fats do not reduce our insulin response to carbohydrates, they do mitigate blood sugar swings. We couldn't find a reference for the claim that eating carbs with fat (like putting butter on your brown rice) causes the formation of small, dense LDL particles, which does not translate directly to atherogenicity anyway. Carbs are also bad, says Wolf, because we turn them first into simple sugars, and then into palmitic acid, which he claims results in the formation of those small, dense, reactive LDLs. Palmitic acid makes up about one-quarter of the fatty acids in butter, chicken fat, cocoa butter, coconut oil, lard, and both conventional and grass-fed beef tallow and lamb tallow. (The difference in palmitic acid content between grass-fed and grain-fed is small.) Wolf's diet allows coconut oil and cocoa butter

(in the form of chocolate bars) but not chicken fat, lard or tallow. Butter is on the "occasional" list, although not in any of the recipes. The richest source of palmitic acid, of course, is palm oil, coming in at 45 percent of the total—palm oil is the olive oil of Africa and Southeast Asia, consumed by millions of people remarkably free of heart disease.

Other inconsistencies abound: Wolf says grains and legumes are bad because they contain phytic acid, lectins and enzyme inhibitors. Nuts also contain phytic acid, lectins and enzyme inhibitors, but they are allowed. He ignores all the evidence for grain consumption in primitive groups, and the widespread consumption of high-carb foods like yams, cassava, tubers and bananas. Dairy foods are dismissed in one short sidebar as a source of gut-irritating proteins (true, when they are pasteurized), antinutrients (none that we know of in dairy, at least not in raw dairy) and protease inhibitors (none in dairy foods), with no discussion of milk consumption among populations of healthy Laplanders, Mongolians, Southeast Asians, Africans and traditional European societies.

According to his website, alcohol is not allowed in the paleo diet . . . but if you do have a drinking problem, his solution is to drink "one or two" margaritas (made with tequila, lime juice and soda only) early in the evening *on an empty stomach!* Wolf notes that coffee, like carbs, raises insulin levels, but often mentions drinking coffee and tells you where to buy it—on one of the inner aisles of the supermarket.

Wolf discusses probiotics almost as an afterthought, but dismisses fermented foods like kimchi and sauerkraut as a source of too much salt and not worth the hassle. Instead he recommends a probiotic pill. Fermented dairy products cause elevated insulin levels and potential gut irritation, he declares. (Actually, a 2001 study in the *American Journal of Clinical Nutrition* found that fermented dairy did not raise insulin levels.)

Speaking of salt, unlike Cordain, Wolf does not forbid it—he just never mentions it, not even in his lengthy section on digestion. Small amounts of salt appear in some of the recipes, but not enough to make all that lean meat palatable.

In fact, the diet (as described on page 218) borders on the inedible. It starts with a piece of cantaloupe and over 300 grams (picture three packs of cards) of salmon for breakfast—with no butter or other fat on the salmon; lunch is a small piece of lean pork (less than 100 grams) with a salad dressed in lemon juice and a couple of walnuts (for those omega-3s); dinner is the same kind of lemon-dressed salad with avocado, three cups (!) of steamed broccoli (but no butter or other fat to moisten it) and over two hundred grams of lean beef—again with no fat, not even marinated. How can anyone eat tough lean meat like that? Dessert is some strawberries (no whipped cream allowed) and snacks to get you from one monkish meal to the next, including an orange, carrot sticks and celery sticks. This dry diet plan is bound to cause cravings—it's actually hard to eat even a

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few bites of very lean meat, let alone over 200 grams.

Wolf describes a typical client named Charlie—who has a great job, lovely wife, is fit and attractive—he's seen hundreds of Charlies, he says. Charlie's diet is "good," which must mean something along the lines described above. He gets up early every morning to go to the gym, to keep in shape. But lately, Charlie is beginning to feel tired all the time, his muscles are getting flabby in spite of the exercise, and he is losing his six-pack. He has wicked sugar cravings in the afternoons and evenings, has developed difficulty concentrating, and his interest in sex has waned. Worst of all, he has trouble sleeping at night—he wakes up wired and tired, needing large doses of coffee to get him going. At age thirty-five, Charlie feels like he is eighty.

Wolf's suggestion: get blackout curtains so he can sleep better. This may help (although we doubt paleolithic man used blackout curtains to keep out the moonlight), but it sounds like Charlie's real problem is that he is suffering from a form of rabbit starvation. The truth is, his diet is terrible. Desperate for fats, his body craves sugar. His paleodiet has depleted him of vitamin A, needed for mental function and the formation of stress and sex hormones. Poor Charlie needs more than blackout curtains—he needs rich, nourishing foods including butter, cream, bone broths, properly prepared grains, organ meats and cod liver oil. Raw whole milk before bedtime is a wonderful, soothing food to induce sleep. Calcium and tryptophan in milk help the body manufacture sleep-inducing melatonin—but Wolf insists we can get all the calcium we need from vegetables and fruit.

Wolf claims that his diet also provides 6386 IU RE (retinol equivalents) from vegetables and fruits, but how can the body convert these carotenes into true vitamin A without fat? In a blog entitled "Vitamins A, D and K: Who Cares?" he claims that we have no need to take cod liver oil and should

be able to convert carotenes to vitamin A once we clear up gut inflammation. Who cares? The research of Dr. Price shows us that vitamins A, D and K are key to restoring our health, whether or not our diet contains grains, legumes, tubers or dairy foods. We need to care; we need to care very much.

More concerns: Wolf is big on fish oil, recommending up to 30 grams per day—that's two tablespoons! All those oxidized polyunsaturates (fish oil is boiled for hours at 230 degrees) are bound to cause problems, not solve them. And then there is the very dangerous suggestion to bring total cholesterol levels down to 120-140 mg/dL—cholesterol levels this low are strongly associated with increased rates of depression, stroke, violent behavior, suicide, intestinal diseases and reduced libido (we make sex and stress hormones out of cholesterol). No wonder Charlie has lost his interest in sex.

The fact is, while *The Paleo Solution* diet contains plenty of meat, it is just another version of food puritanism—a diet so lean, dry and deficient that it is impossible to follow and bound to lead to health problems. No "paleolithic" or traditional culture ever ate this way, and we shouldn't either.

Review by Sally Fallon Morell

KEEPING A FAMILY COW, Revised and Updated Edition by Joann S. Grohman

We are delighted to announce this revised and updated edition of *Keeping a Family Cow*, a vital reference book for the many homesteaders out there who seek food self-sufficiency by purchasing a family cow. The book covers such topics as choosing a dairy breed, milking your cow, drying off, calving and breeding; hay quality, proper feeding, fencing and pasture management, treating bovine diseases and making butter, yogurt and cheese. Well written, inspiring and informative, this book is an obvious Thumbs Up.

With a publication date of November 1, 2013, *Keeping a Family Cow* will be available at our conference in Atlanta; and we are proud to announce that the author, the venerable Joann S. Grohman, will be a speaker.

Review by Sally Fallon Morell

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The CAFO Reader: The Tragedy of Industrial Animal Factories

Edited by Daniel Imhoff

Published by The Foundation for

**Deep Ecology in collaboration with
Watershed Media, first edition 2010**

Each chapter in this extensive collection of essays on factory farming is written by a different author. The authors I'm most familiar with are Michael Pollan, Wendell Berry and Joel Salatin. One of the first chapters is written by Andrew Kimbell who looks at some of the historical aspects and ideologies behind how we got where we are vis-a-vis industrial animal factories. He and other authors give several examples of what happens when science is separated from morality or feeling. Genetic engineers produce or try to produce chickens without feathers and pigs with more meat that are so deformed they can't walk. Feedlot operators crowd cows so close they end up coated with their own excrement. Keeping that waste out of the meat is almost impossible when it comes time to butcher, so their solution is to hose the carcasses off with toxic chemicals and irradiate them. Hog factories confine the animals to crates insuring these tortured creatures are in pain their entire lives. Chickens suffer similar fates.

How do people who participate in this horror live with themselves? Kimbell expounds on what he calls cold evil. Unlike the more familiar hot evil that seethes with rage and violent emotion, this cold evil feels nothing. These animals are not viewed as living beings, but as machines. Their screams are the equivalent of the screeching sound your car makes when a belt is worn out or improperly adjusted. The screams don't mean pain, just malfunction. There are no living animals on factory farms, only production units. Cold evil has no empathy. It does not recognize good or evil. Nothing is good. Nothing is evil. Everything merely exists. It is machine-like in its indifference. There is a cult of objectivity

lurking in the purest scientific circles. Some of the most extreme members of this cult claim they don't recognize the reality of anything that can't be measured, quantified, touched or seen. Such a view doesn't stand up to very close inspection. That rationale may conveniently dispose of feelings but does it really make sense to think that way? What is a thought? Can it be measured or is it tangible? Such a paradigm destroys thoughts, science, philosophy, ideas, and itself just as completely as feelings.

Wendell Berry also touches on the effects of ruthless, amoral science. If all of nature is just a mechanism or collection of mechanisms, the objective is to force the mechanism to work better, faster, or more efficiently. If nature won't do it, then we will replace nature with technology and factories that will. The goal is always greater capacity and efficiency. The factories get bigger and consume more and more resources, including land. That leads to less room and less tolerance for landowners who work with nature. Thereby the United States has been transformed from a land of owners connected to life-giving nature into a land of employees serving a machine.

Michael Pollan several years ago bought a steer creatively named No. 534 and followed his progress from the ranch where he was born to the feedlot where he met his ultimate fate. Life on the ranch was not bad. Life at the feedlot was typical. Antibiotics are required on feedlots or the animals would all be dead shortly after arrival. Even with antibiotics they can't last long on the large amounts of grain they are fed. Pollan talked to a veterinarian who very frankly admitted that if the cattle had a little more space and an appropriate diet, he would be out of a job.

Smithfield is one of the biggest factory farmers in the world. This company has polluted North Carolina as much as North Carolina will allow so they have moved on to Romania and Poland to see how much they can get away with there.

Factory farms are not just confined to land



How do
people who
participate
in this
horror
live with
themselves?

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either. They are doing the same kind of thing in the sea with fish. On land and sea the toxicity of these operations threatens not only themselves but the wildlife around them.

All this is not bad enough, so they pile genetic modification on top of all that. And cloning. The strange thing about genetic engineering and cloning is that they don't work. Genetically engineered crops are not more robust or more productive than their conventional counterparts. They are certainly more expensive. Over ninety percent of cloning attempts fail completely and less than one percent produces anything close to a healthy adult. The only reason factory farms can begin to compete with small farms, besides the support of government subsidies, is the fact that they can legally get away with destroying their environment. Small farms can't.

Biodiversity is in rapid decline. Factories are not interested in diversity. They want consistent results that come as efficiently as possible. They look for one optimum breed and ignore all the others. In the dairy industry, the Holstein is over-bred while other breeds disappear. In the chicken industry, White Leghorns and White Cornish Cross boilers rule. Not only do we lose variety but the situation is dangerous because pandemic disease is a much greater threat within a monoculture. If a disease comes along that wipes out all Holsteins it would be nice to have other breeds to fall back on that are immune. It was this emphasis on a single species of potato that led to the crop disaster that produced the Irish potato famine.

Joel Salatin has said elsewhere that a culture that abuses its animals will abuse its people. We are there. Steve Striffler goes into some detail about conditions on a butchering line. At times and in many places there are no bathroom breaks. If you need to go, you go right there on the line. If you get hurt, you just keep working. If you can't, you are out of a job. If there is a nurse in the plant, she gives you an aspirin and sends you back to work. Large operations knowingly truck

in undocumented immigrant workers who won't complain about conditions because they fear getting in trouble or being shipped back to their home country where things may be even worse. The work is painful, backbreaking and mind-numbing. Turnover is high because no one can take it for very long. While we sanctimoniously look down our noses at sweat shops and slave labor in Asia or elsewhere, we ignore the very same squalor in our own backyard.

This book is seriously depressing. You can tell what you are in for just by looking at the cover photo of the dim interior of a hog concentration camp. Given the subject matter this is hardly surprising but the gloom and doom is relieved somewhat by solutions offered in the last several chapters. There are some good suggestions, but I see the letters FDA or USDA a number of times with little explanation as to how these industry-controlled parts of the problem are to be magically converted into part of the solution.

Almost at the very end of the book, however, we get a philosophical breath of fresh air from Joel Salatin. His solution does not depend on the beneficence of the FDA or USDA or their industrial puppet masters. In fact, he points out that the right answers will not come from pinstripe suits. He paints a hilarious picture of big dairy's ultimate dream of a single giant cow connected by pipelines to the whole country. We need to go back to many small farms and more locally sourced food. He illustrates how this can be done with an interesting observation about Havana, Cuba, a city of over two million people. When Cuba's cheap energy from the Soviet Union ended, things had to change in a big way. Around three-quarters of the food consumed in Havana is now produced on scores of small lots right within the city limits.

Mr. Salatin has his own unique way of articulating his agreement with other authors on the problem with modern science. He points out that "Greco-Roman Western reductionist linear systematized fragmented disconnected compartmentalized thinking" is not working. As I have said elsewhere, and I know Joel Salatin would agree, I'm not against science or technology per se, just this modern caricature of science. Science minus morality equals GMO, CAFO, etc. I prefer science with a set of morals and a heart, science that understands that there is a more important question than, "Can we do it?" More importantly, "Should we do it?" I prefer science and technology that thinks deeper than dollars and works with nature instead of trying to destroy or enslave it. It is impossible to completely agree with every detail that the many authors of this book bring up but the overall work is very thorough and well done. My natural thumb is UP.

Review by Tim Boyd

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***Young for Life:
The Easy No-Diet, No-Sweat Plan to
Look and Feel Ten Years Younger*
By Marilyn Diamond and
Dr. Donald “Rock” Schnell
Rodale Books, 2013**

In the mid-1980s Marilyn Diamond and her husband of the time co-wrote a wildly influential bestseller called *Fit for Life*, which promoted vegetarian or vegan diets as the path to perfect health and vitality. So when I was handed her recent book to review I had low expectations for it. Then I read the introduction. I learned that after decades of a nutrient-sparse diet combined with a lot of aerobic exercise, Marilyn was in bad shape. So she abandoned her own advice, upgraded to a smarter husband, and wrote a smarter book.

Marilyn and Dr. Rock now know that, contrary to the over-flaunted myth, vegetarians do not in fact live longer than the rest of us. Diamond and Schnell go on to assert that any food that is composed of isolated protein and no fat must be a chemically processed substance because such a creation doesn't occur naturally with real food. Is it possible that they understand the importance of saturated fat? Why, yes it is. They also understand that a lot of important nutrition information is mysteriously missing from databases like Medline.

The approach to exercise in this book is an improvement over the time-consuming aerobic approach. Isometric exercise is promoted and a routine that only takes a few minutes is suggested for those who want to try it.

There are a lot of supplement recommendations that I don't necessarily agree with completely but then they move on to cover the fat-soluble vitamins, starting with vitamin D. The coverage of how sunlight is converted to vitamin D is slightly flawed but they correctly state that the sun does not cause melanoma. In fact, the sun is an important weapon against cancer.

The "subversive" information continues with the claim that butter is a health food, cholesterol is good for you, and soy isn't. If you want to get those all-important fat-soluble vitamins like A and D, you're going to have to eat animal foods that come with fat and cholesterol.

Diamond and Schnell point out that the cherry-picking Seven-Countries Study by Ancel Keys cannot be considered science and proves nothing about fat or cholesterol in relation to coronary heart disease. Major studies mentioned in this book include the study by Dr. Michael DeBakey, the Nurses' Health Study by Harvard University, the Health Professionals Follow-Up Study, and the massive Framingham Study. Billions of dollars have been spent trying to prove the cholesterol-lipid hypothesis. The result has been failure. Have we wasted enough money yet?

Did Diamond and Schnell happen to discover our website and learn anything there? I don't know. There is no mention of it in their book, yet they do list Weston Price's *Nutrition and Physical Degeneration* as a resource and there are brief references to Sally Fallon [Morell] and Dr. Mary Enig as well. This book is interesting from the standpoint that, once again, people with firsthand experience with veganism have found their way to Weston A. Price. Thumbs UP.

Review by Tim Boyd



Contrary to the
over-flaunted
myth,
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fact do not
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the rest of us.

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***Why Calories Count: From Science to Politics*
By Marion Nestle and Malden Nesheim
University of California Press, 2012**

“People vary, diets vary, activity levels vary,” but calories don’t vary, say the authors, Marion Nestle and Malden Nesheim, who are two “old schoolers” who cling tenaciously to the outdated and worn ideology of Frederick (“a calorie is a calorie”) Stare and Ancel (lipid hypothesis) Keys. They believe that “the only way to weight loss is through lower calorie intake based on foods of high nutritional and low caloric density.” (Do such foods exist?) Their advice to eat less, in smaller portions, exercise more, and thoroughly chew each mouthful has been less than helpful to the majority of people who struggle with weight problems. Years of obsessively counting calories have failed the American people. Obesity has increased nationwide, and the average American is now twenty pounds heavier than twenty years ago. As a nation we are eating less fat while obesity statistics continue to soar.

Although Americans continue to worship at the diet altar of low-calorie, less quantity, and especially less saturated fat, they are more overweight and obese than ever before. Despite this fact, the authors cling to the notion that a lowfat diet based on calorie counting has been a successful strategy and continues to be, since Frederick Stare, founder of the nutrition department of Harvard’s School of Public Health, coined the phrase, “A calorie is a calorie.” He also said, “Drink a cup of corn oil every day,” but that isn’t exactly smart either. No matter how you phrase it, however, a celery stalk or carrot stick cannot hold a flame next to a nicely prepared pasture-raised fatty beefsteak.

The authors contend that the purpose of their book is to give us a greater appreciation of calories because people are confused about them, and calories are poorly understood. Thus if you can understand calories, you can enjoy your food and “eat without having to think about it.”

Marion Nestle is the author of several books about food; the best known is *Food Politics*. She is also a professor in the Department of Nutrition at New York University. Malden Nesheim is former Director of Nutritional Sciences at Cornell University. They previously wrote a book together on feeding pets.

A calorie is a measure of heat: the amount of energy that raises one gram of water one degree Celsius. The science of calories began basically as the work of one man employed by the USDA. Wilbur O. Atwater used his values obtained from burning food to predict the number of calories people ate. For at least 120 years, his paradigm remains unchallenged as the basis for weight control. Carbohydrates and protein contain four calories per gram; fat contains nine calories; and alcohol, seven calories per gram. Carbohydrates and protein are obviously not equal biochemically as each has a specific job and are considerably different from one another. But in the eyes of the authors they are indeed the same, at four calories per gram. And fat is condemned because of its high calorie content in comparison to protein and carbohydrates.

On the basis of the calorie, an entire food industry was built and continues to thrive because the public, with total faith in the calorie concept, continues to buy it.

Gary Taubes makes the argument in his books *Good Calories, Bad Calories* and *Why We Get Fat* that obesity is caused “by the quality of the calories rather than the quantity, and specifically by the effect of refined and easily digestible carbohydrates on the hormonal regulation of fat storage and metabolism.” Nestle and Nesheim devote about three-fourths of a page to Taubes’ books, and dismiss what they call his “reductionist view” because he emphasizes carbohydrates as “the primary driver behind weight gain.”

They blame obesity, however, on increased food production, which makes more calories available, and low food prices, which enable people to afford to eat more. Does that descrip-

Although Americans continue to worship at the diet altar of low-calorie, less quantity, and especially less saturated fat, they are more overweight and obese than ever before.

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tion fit a mindless beast who will eat until he drops? Nestle and Nesheim explain the political stakes and show how federal and corporate policies have come together to create an “eat more” environment.

Ben Pratt, a WAPF chapter leader from the UK and a fitness professional who presented a lecture at Wise Traditions 2011, in Dallas, on “Paradoxical Obesity,” included a thorough and extensive review of the literature on obesity in his talk. He demonstrated, without a doubt, that cutting calories plus eating less fat rarely equals successful weight loss, and that adding exercise is not always a successful strategy either. “Reduced fat and calorie intake and frequent use of low calorie food products have been associated with a paradoxical increase in the prevalence of obesity.” Moderate daily exercise may be a good practice but it won’t result in permanent fat loss. As Gary Taubes writes in *Good Calories, Bad Calories*, “Expending more energy than we consume does not lead to long-term weight loss; it leads to hunger.” You can work up a big appetite on the treadmill.

The calories in the food that Weston Price observed in the diets of healthy native populations were of a much different source from the calories eaten in the foods of ill populations that he documented in his book, *Nutrition and Physical Degeneration*.

In fact scientists are calling for a revision of the methods now used to measure calories because those methods may not be accurate when it comes to high fat and high fiber foods. Atwater’s methods are very dated, not up to today’s rigorous standards, and were tested on only three persons (his lab technicians), say his critics.

Novotny, Gebauer and Baer, scientists at the USDA, recently published (2012) a study that finds that almonds have about twenty percent fewer calories than determined by the Atwater method. They found that fat shows up in the feces of almond eaters, indicating that the human body

does not absorb all the fat (or calories) that are found in the nuts they consumed. Who knows how many other Atwater values are inaccurate?

Even the *Journal of the American Medical Association (JAMA)* reported in 2012 that, “The results of our study challenge the notion that a calorie is a calorie from a metabolic perspective.” Researchers found that volunteers on a very low carbohydrate diet with high fat burned up more energy than those on the lowfat, high-carb diets.

Despite this recent evidence from the two 2012 studies on calories, Marion Nestle and her co-author defend their original positions in *Why Calories Count* in a PBS.org blog (09.20.2012). They conclude: “To lose weight, eat less; it works every time. Choose smaller portions.” (Smaller Twinkies?) And finally they state: “Until research convinces us otherwise, we believe a calorie is a calorie.”

But a very recent study published in *PLoS One* (an open access peer-reviewed scientific journal published by the Public Library of Science) on February 27, 2013, hammers a big nail in the coffin of the “calorie is a calorie” mantra. Researchers combined major international databases on food availability and diabetes prevalence to assess all sources of calories. They determined that “total caloric availability was unrelated to diabetes prevalence; for every extra 150 calories per day, diabetes prevalence rose by only 0.1 percent. But if those 150 calories per day happened to be in a can of soda, diabetes prevalence rose 11-fold, by 1.1 percent. This effect of sugar was exclusive of obesity and controlling for body mass index did not negate the effect.”

Despite all the tedium and reluctance to challenge their credo, the authors nevertheless have a few good things to say on other topics:

“We need a farm bill that’s designed from top to bottom to support healthier diets, one that supports growing fruits and vegetables and making them cheaper. We need to fix school lunches so they’re based on fresh foods, and fix food assistance programs so people have greater

In fact scientists are calling for a revision of the methods now used to measure calories because those methods may not be accurate when it comes to high fat and high fiber foods.

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***The Biggest Estate on Earth* *How Aborigines Made Australia* By Bill Gammage Allen & Unwin**

When the Europeans came to Australia, they were amazed at what they found—a beautiful country, parklike in appearance, with fertile open pastures, often attractively ribboned with belts of trees, alternating with areas of impenetrable brush accessed by occasional open tracks ending in cul de sacs. Waterways were dammed to form meadows, wells protected by earthen structures, river banks were cleared. Game, birds and fish abounded.

The Europeans thought they had discovered a natural paradise, but over time, fertility declined, overstocking denuded the plains, and many of the open areas reverted to thick, ungoverned brush. It is only in recent times that Europeans will admit that the beautiful landscapes of Australia were created by the Aborigines, most frequently as family units working in cooperation with other family units, to sculpt the earth, mainly using the tool of fire.

The use of fire was a great art—some areas needing yearly burnings, and some requiring fire only at intervals of ten years or more. Fire cleared brush, returned minerals to the soil, brought up green grass, kept insect populations at bay,

flushed kangaroo and other animals for hunters, created habitat for game, and destroyed habitat when certain species became too numerous.

Germane to our discussions of the "paleolithic" diet, this stone age people created fields of wild grain, usually millet, some stretching for as much as one thousand acres. They harvested the grain with stone knives, leaving the straw in what resembled haystacks, and stored this important foodstuff. Likewise they cultivated dozens of species of wild yam and tended areas of berries and fruit.

Where did the Aborigines obtain their knowledge? How did they know what to do? It came from the Dreaming, they explained to the uncomprehending white man, and the Dreaming, the supersensible world, wanted them, first and foremost, to care for the land. Land care was the most important role of human beings on earth.

While repetitive—Gammage takes care to include just about every early description of Australia that he could find—*The Biggest Estate on Earth* is nevertheless a fascinating page-turner, absolute must reading for anyone interested in "primitive" habits, attitudes and diet. Inspiring as well as informative, the Aboriginal peoples of Australia offer us a template for the future, of a land fully sculpted and managed, perhaps with other tools than fire, but a land that is fertile, varied and beautiful. Review by Sally Fallon Morell

access to healthier foods. . . . Stop marketing food to kids. And get rid of health claims on food packages too."

We just wonder how they define "healthier foods" considering that they recommend lowfat dairy products as nutrient-dense and good quality food.

This summer Coca-Cola released a two-minute ad, "Coming Together," in which they say that all calories count, no matter what the source, and that if you eat too many calories you gain weight. Coke points to their non-caloric drinks

in school vending machines as a better choice for kids. But studies show that aspartame, the main non-caloric sweetener in the U.S. food supply, has the same effect on blood sugar as sucrose (table sugar), and an unhealthy effect on insulin levels. So it looks like aspartame-laden drinks should not be considered a healthy choice despite their no-calorie content. It would seem that Marion Nestle, her co-author and Coca-Cola have become strange bedfellows in the ongoing conversation about calories.

This book contributes very little to present knowledge on the subject of calories, weight control and obesity, but only attempts to explain and reinforce outdated knowledge without consideration of new research or creative thought. We give *Why Calories Count* a definitive thumbs down.

Review by Sylvia Onusic, PhD, CNS, LDN

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Squeezed: What You Don't Know about Orange Juice

By Alissa Hamilton

Yale University Press, 2010

Ever stop to think why we drink orange juice in the mornings? Or why we don't simply peel actual whole oranges throughout the day to quench our thirst? What exactly is the difference between marketing terms like "pure orange juice," "concentrate," "not from concentrate," and "gently pasteurized"? Also, just how far back did food industry giants begin misleading the consumer about orange juice, and how do they continue to mislead the public today?

Squeezed, by Alissa Hamilton, addresses these issues as well as presents an investigative history of Florida's orange juice industry, its deceptive marketing practices, and some of the current global and competitive forces that have radically transformed an industry from what once was a locally grown product into a commodity that now most likely comes from Brazil. Along the way, the reader learns about the early concerns by regulators as well as the very sophisticated marketing and science that go into maintaining ignorance about a seemingly uncomplicated product that is instead a full-blown factory-processed chemical creation.

Oranges probably first originated in Southeast Asia and are thought to be a hybrid of a pummelo and a mandarin. The citrus fruits were cultivated by the Chinese as far back as 2500 BC. Arab traders introduced the orange to Europeans and from there the earliest Spanish explorers would eventually plant the first trees in Florida.

Just like so many other "advancements" in food processing, orange juice can be traced back to the days of World War II, when hundreds of scientists were researching ways to provide soldiers with improved forms of condensed food. This individual, daily combat food ration became known as the Army's "K-ration," which would ultimately lead to the invention of orange juice

concentrate in 1948.

Florida's orange growers at first welcomed this new technology as it not only returned more profits, but also created a new market for their excess production. Soon thereafter, sales of "chilled" orange juice also began, along with significant investment in advertising. From the beginning, employing trusted celebrities would prove a great marketing success as Bing Crosby was hired in the 1950s to convince the home-maker that squeezing oranges was a waste of time, and in the 1960s, Anita Bryant represented the "all-American mother" who proudly provides a "wholesome and nutritious" product for her family.

Over the next fifty years and continuing today, the consumer has been deliberately misled as to the purity of orange juice with many of the following marketing phrases: "pure and natural," contains only "100 percent pure squeezed orange juice," "made from fresh hand-picked oranges," "nothing added, nothing taken away, only oranges." As *Squeezed* reveals, commercial orange juice is none of these things!

In what would become an ongoing battle between the FDA and marketers of orange juice, questions about how the juice was being adulterated first arose in 1956. In 1961, thanks to the FDA's Standards of Identity Act of 1938, a lengthy public hearing would begin to inform both regulators and consumers about the industry. One notable quote that almost seems impossible to believe given the venality of today's FDA, was from the then FDA Commissioner, George Larrice, who declared, "The consumer has a right to know what is in his food." By this time, however, it is estimated that over twenty-five thousand scientists were employed by the food industry that had already introduced over seven hundred food additives into the food supply.

Manufacturers would also spend a large amount of resources in efforts to convince the consumer that commercial orange juice was not only as pure and nutritious as home-squeezed



Just like so many "advancements" in food processing, orange juice can be traced back to the days of World War II.

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orange juice (close your eyes and you probably can recall the straw coming out of an orange depicted on the packaging), but how inconvenient it was simply to peel an orange.

In fact, commercial orange juice is very high in sugar, contains less vitamin C than an actual orange, and is low in fiber and other nutrients. Prior to the early 1900s, before the Florida orange growers organized and launched a campaign to market their surplus crop, the only people who drank orange juice were Floridians who had a tree in their backyard!

Hamilton also details just how orange juice is stored for up to one year in tank farms: pasteurized, deoiled, sterilized, deaerated, loaded into aseptic tanks, then later brought out, blended with flavor packs, and reheated. Refined orange oil and orange essence are added to simulate "freshness."

The actual constitution of a "flavor pack" involves a great deal of chemistry and has nothing to do with the sun-kissed citrus plucked in full ripeness from a tree that marketers would conjure in your imagination, and instead has everything to do with a chemist's lab. These "flavor packs" are manufactured by chemical fragrance companies and are necessary to return flavor and aroma into the inert product since the original taste and aroma were destroyed in storage and processing. These flavor packs do not even have to be derived from Florida oranges; the extracts can come from countries using banned pesticides, for example. Orange oil is fractionated into several components, each of which is isolated, and then recombined in different proportions when added to the "juice." Chemicals such as ethyl butyrate, the most frequently used artificial orange flavoring and perfumery solvent, is very commonly added. These flavor packs are labelled under "natural and/or artificial flavors."

Just reading the descriptions of these manufacturing techniques should destroy the innocence of the average orange juice consumer and alter forever the way one looks at a glass of

"orange juice" greeting one at the breakfast table.

Not unlike the dairy farmers of recent past, Florida orange growers are finding it more profitable to sell their land to condominium developers than try to compete against global competitive forces. Unless it is springtime in Florida, the odds are that you are drinking, at least in part, orange juice that comes from Brazil in cargo ships that have the capacity to aseptically store seven million gallons.

While this book is very informative, it dedicates a disproportionate amount of pages to a unique 1961 FDA hearing, "Matter of Orange Juice and Orange Juice Products; Definitions and Standards of Identity." On the other hand, for those who are industry and policy junkies this section is perhaps one of the more insightful descriptions into the inner workings of the system.

In the end, *Squeezed* does not particularly focus on the health aspects of orange juice, or whether or not orange juice is good for you, but rather on how long the industry has been misleading consumers about the authenticity of its product, and their indifference to a food product that has become so ubiquitous in the American diet.

Review by Bill Hory

Odds are that you are drinking orange juice that comes from Brazil in cargo ships that have the capacity to aseptically store seven million gallons.

JOURNAL NOW AVAILABLE AS
DIGITAL TALKING BOOK
FOR THE VISUALLY IMPAIRED

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All Thumbs Book Reviews

Whole: Rethinking the Science of Nutrition
By T. Colin Campbell, PhD
BenBella Books, 2013

In an interview with the *Philadelphia Inquirer* posted May 1, 2013 at philly.com, T. Colin Campbell (TCC) remarked that his new book *Whole* is “sort of an explanation of why this evidence [that he presented in *The China Study*] actually works. . .since that book [*The China Study*] was published, what we know about this is just truly dramatic.” This sort of wandering ramble typifies the tone of TCC’s recent offering.

From the first to last pages of *Whole*, that “truly dramatic” promised evidence fails to appear. It is very clear that the book lacks a strong argument for the benefits of a plant-based diet as well as missing much more.

TCC’s whole food plant-based diet, which he considers “the ideal human diet,” avoiding animal products, salt and oils, derives eighty percent of calories from carbohydrates, ten percent from fat, and ten percent from protein.

Whole is simply déjà vu for those who have read *The China Study*. TCC repeats most of his plant-based rhetoric, with few new twists and turns. *The China Study* has been thoroughly dissected and debunked by Denise Minger and Chris Masterjohn in previous reviews.

So why has TCC written this new book? So that we may know “the truth.” “Millions of people have read about the China Study,” he says, as he paints himself as a “heretic,” another Copernicus, and a hero “blasting through” the boundaries of the scientific paradigm. The only thing blasting through here is a mighty off-gassing of excessive hubris, and a lot of whining and complaining that his research has not achieved mainstream status.

TCC claims that his path to “heresy” started with an “observation” he made in the late 1970s about Filipino children of the “best-fed families” who consumed the most protein but also developed the most liver cancer. However we don’t

know much about these children, including what else they were eating.

TCC’s premise that animal protein is carcinogenic is based on a study he found in an old journal about Indian researchers who used aflatoxin (AF), a carcinogen from moldy peanuts, to provoke cancer in rats. By decreasing animal protein (casein) from twenty percent to five percent the researchers completely prevented the AF from causing cancer. He began working on the same theme and his results corroborated the earlier results of the Indian researchers: a dose-response curve existed for AF and cancer on a twenty percent casein diet, but disappeared on a five percent casein diet.

TCC went on to prove this “heresy” in the laboratory and got a lot of mileage out of the idea. He published several studies based on this concept that high animal protein contributes to cancer growth, and his research was supported by public grants along the way.

Public monies also funded a study he published in 1981 in this same line of research, but TCC does not talk about that in either of his books. This may be because the results of this study cast a negative light on his low-protein paradigm. In the research paper, “Effects of Low Dietary Protein and Dietary Aflatoxin on Hepatic Glutathione Levels in F-344 Rats,” published in *Toxicology and Applied Pharmacology* (volume 59, pages 196-198), TCC found that low protein diets caused a “marked retardation in growth” in male rats, and “a reduction in liver glutathione within hours of feeding which remained low for the duration of the study.” The aflatoxin caused more cancerous lesions in male rats despite the content of the diet they ate, but the lesions were “more pronounced” in the high-protein group.

Now this can’t be good because glutathione is the master antioxidant in the body, and is the major free radical scavenger in the brain, cleaning up those damaging molecules. It is used in DNA synthesis and repair, enzyme activation, the immune system and the nervous system.



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While all cells can make glutathione, liver synthesis is essential. We want to “boost glutathione levels” by drinking raw milk and eating good quality animal protein. Had he used whey or raw milk rather than purified casein, he may have found totally different results:

Animal models, usually for colon and mammary tumorigenesis, nearly always show that whey protein is superior to other dietary proteins for suppression of tumour development.

This benefit is attributed to its high content of cystine/cysteine and gamma-glutamylcyst(e)ine dipeptides, which are efficient substrates for the synthesis of glutathione. Various experiments showed that tumour prevention by dietary whey protein was accompanied by increased glutathione levels in serum and tissues as well as enhanced splenic lymphocyte proliferation, phagocytosis and natural killer, T helper and cytotoxic T cell activity.

(Parodi PW. A role for milk proteins and their peptides in cancer prevention. *Curr Pharm Des.*2007;13(8):813-28)

Why is TCC so down on protein? Because plant foods have precious little of it and the whole food plant-based diet he advocates is naturally low in protein, except for soy, a favorite source of vegan protein, which he fails to mention has a GMO connection. Nor does he mention the fact that most of the corn, cotton, some squash, and now the wheat supply in the U.S. is genetically engineered.

TCC also does not mention the obvious fact that vegetables and fruits are regularly sprayed with a series of chemical pesticides and herbicides, nor does he caution his followers that they would be well-served to eat only organic or/and homegrown produce. The “Dirty Dozen,” a list of the most sprayed fruits and vegetables from the

Environmental Working Group, list strawberries, pears, grapes, lettuce, pepper, celery, nectarines, potatoes, spinach and others among the most contaminated.

TCC claims that his diet “is the healthiest way of eating that has ever been studied, and far more effective in promoting health and preventing disease than prescription drugs, surgery and supplements.” It sounds like the grandiosity of this statement should be backed by pages of research studies. But alas, not one is cited. It appears be Campbell-speak and wholly based on his opinions.

As he did in *The China Study*, TCC drags out the same tired evidence in humans, such as the experiments of Esselstyn and Ornish of whom he said “both showed that a plant-based diet, high carbohydrate diet controlled and even reversed advanced heart disease.” Chris Masterjohn has observed that these studies were either poorly conducted, had no control group, or failed to isolate animal foods as a variable.

Esselstyn was a surgeon at the Cleveland Clinic, publishing studies on hyperparathyroidism until much later in his life when he teamed up with TCC to promote the plant-based diet.

Another reason that TCC decided to write this book is to inform people that they have a choice when it comes to medical treatment. He relates this to his wife’s diagnosis of Stage III melanoma and the response of her doctor when TCC wanted to show him some literature related to a 1995 study of melanoma patients at the Gerson Clinic in Mexico. (He mentions that this study is required reading in his courses at Cornell.) In this study, “Five-year survival rates of melanoma patients treated by diet therapy after the manner of Gerson. . . a mostly plant-based diet remarkably increased survival for those with Stage III and Stage IV.”

Again we find an example of TCC’s cherry picking. What TCC didn’t tell us about the “mostly plant-based diet” used in this study is that around half of the patients in the study were given about a half pound of liver juice daily. After the liver juice was discontinued in 1987 because of a general campylobacter contamination in U.S. cattle at that time, the lactovegetarian diet included “crude liver extract with vitamin B-12 injectable.” Dairy was added after six weeks. Gerson felt that this alternative liver substitute was not as effective as the raw liver juice but helped patients to stay on the program when they returned home. If Campbell really read the study he would know that the diet contained both liver and dairy products.

In the end TCC’s wife decided not to take the treatment but only to continue to eat a plant-based diet and “is still in excellent health.” But wasn’t she eating the plant-based diet prior to the diagnosis?

Campbell rails against statistics, lies and spin doctors, old boys’ networks, as well as cherry pickers. But he himself is a cherry picker and an old boy. Doesn’t he have his own “old boy network,” along with Drs. Esselstyn, Fuhrman and Ornish, who all advocate a plant-based diet?

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Benbella Books, the publisher of *Whole* and *The China Study* is a “publishing boutique” that publishes thirty or forty books a year that seem to cater to the vegan crowd, not a publisher of serious nutrition work. Recent publications include *Jazzy Vegetarian Classics*, *Food over Medicine* (by Pamela Popper, with a distinctly vegan slant) and *The China Study Cookbook*.

Pamela Popper, ND, is part of Campbell’s teaching team at Cornell, where he offers a certification course on plant-based nutrition. Popper also appears in the film, *Forks over Knives*, and appears to be the one woman in the midst of the “cabal of old men” espousing veganism.

TCC spends three out of eighteen chapters talking about nutrition and his “heretical path.” In the remaining chapters of the book he rails against reductionism and government, research for profit, nutritional organizations and the media. However, surprisingly, in the midst of repetitive tedium, there are a few good insights into the healthcare system and supplement industry, reductionism in nutritional research, the influence of industry on research, research emphasis on genetics versus nutrition, and other topics.

Some of his most interesting observations in the book take the form of lambasting the Academy of Nutrition and Dietetics, the former American Dietetic Association. He says that “we can’t rely on this ‘so-called’ professional society” after they have been “putting out so much junk information” . . . “they window dress their information to make it look reasonably correct sometimes,” and have Coca-Cola, Pepsi-Cola, Big Pharma, Soy Joy and others on the payroll. Here he is “speaking out for dietitians” and against those who control them, which he considers a “conspiracy.”

TCC also trashes the American Society for Nutrition (ASN) where “the influence of industrial profit is so pervasive within that no attempts to self-regulate can be effective.” TCC was actually a member of this society for many years and even became involved in the leadership of the

organization. At this point certain “influential” members attempted to have him expelled, the first time in the existence of the organization.

TCC avers that the American Cancer Association (ACS) is “one of the big obstacles to reducing cancer rates in the country,” and “the world’s wealthiest non-profit,” to which the junk food companies, the pharmaceutical industry and health insurance companies are generous contributors. He feels that the National Multiple Sclerosis Society (MS Society) is in the same boat and that neither the ACS nor the MS Society “say much about nutrition in preventing disease.” These examples appear in Chapter 28, “Blinded by the Light-Bringers” which could be considered a clever title, when compared to other sections of the book.

Some of the comments found in reviews on the website goodreads.com about TCC’s book include this by one perceptive reviewer: “Campbell hypocritically condemns ‘science’ for being single-minded and intolerant when his book is clearly biased, and uses oversimplified metaphors to convince the layman that he holds scientific authority over scientists who subscribe to traditional Western medicine.” It appears that there has been no “rethinking” involved in *Whole*. With that we give this book an emphatic thumbs down.

Review by Sylvia Onusic, PhD, CNS, LDN

LET MAGIC HAPPEN By Larry Burk, MD, CEHP

Let Magic Happen recounts the journey of a radiologist from conventional to holistic medicine. His journey includes discovery of the Weston A. Price Foundation and a diet of nutrient-dense food. But Burk’s main interest is in energy healing, and he was instrumental in organizing several conferences on this subject at Duke University. He describes the synchronistic events that led him down this path, and speculates on the science and physics of intuitive and energy medicine, based on his background in magnetic resonance imaging. He addresses such questions as the survival of consciousness after death and concludes by offering a series of exercises to help readers cultivate their own intuitive and healing powers. The medicine of the future will combine the best of science, especially in the field of nutrition, with a more metaphysical approach to diagnosis and healing. The book provides a blueprint for that future and will make fascinating reading for those interested in the more esoteric aspects of health. Thumbs Up.

Review by Sally Fallon Morell

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Why Stomach Acid is Good for You
by Jonathan Wright, MD and Lane Lenard,
PhD
M. Evans and Company

Tums, Rolaids, Nexium, the purple pill: if the endless stream of TV, print, and online ads for medication to reduce stomach acid is any indication, we are facing an epidemic of excessive stomach acid. We are absolutely drowning in it and should ask our doctors for prescription-strength drugs to lower it. How else could we account for the fact that over-the-counter and prescription medication to treat heartburn, GERD, and other forms of indigestion are among the top selling drugs? Contrary to what we've been led to believe, Drs. Jonathan Wright and Lane Lenard argue that these conditions have little to do with eating and drinking acidic foods and beverages, or lying down too soon after a meal. The biggest factor in indigestion, they say, is not too much stomach acid, but too little.

If this sounds illogical, it's only because many of us are unfamiliar with the anatomy and physiology of our own digestive tracts. It makes sense that too much stomach acid would cause the discomfort we associate with indigestion, but a quick primer on the digestive process reveals that rather than making our stomachs less acidic, we want to make sure our stomach acid is plentiful and strong. When it's not, indigestion is only one among myriad conditions that result. The authors give an A-to-V list of health complications that are the direct and indirect results of insufficient acidity—everything from acne to vitiligo—and if there were more common conditions with the letters X through Z, they would have included those, too.

How does reduced stomach acid cause indigestion? While food begins its mechanical and chemical breakdown in the mouth (courtesy of chewing and salivary enzymes), the major breakdown of food starts in the stomach. Specifically, protein triggers the release of stomach acid

(hydrochloric acid, or HCl). HCl is designed to “get things going,” so to speak. The very strong acid is supposed to start breaking things down to a point where they can pass along into the small intestine, the next stop on the digestion train. Food isn't supposed to remain in the stomach for very long. The HCl should be strong enough to do its job, crank things up, and hand the baton to the duodenum. When HCl isn't strong enough, or there's not enough of it to go around, food stays in the stomach longer than it should. Proteins putrefy, carbohydrates start to ferment, and this is what produces bloating, discomfort, and the gas that “refluxes” back into the esophagus. So acid-reducing and blocking drugs are simply band-aids. They do nothing to address the underlying cause. In fact, by merely suppressing the symptoms and allowing the sufferer to continue eating as before, they lay the groundwork for slow-growing, long-term health complications. The authors pull no punches in calling pharmaceutical companies to the mat for their whack-a-mole approach to treating individual symptoms and marketing yet more drugs for the conditions the acid blockers eventually create: “Never lose sight of the fact that pharmaceutical companies are not in business to cure diseases, but rather to make money for their stockholders. Once a patient is cured, that patient doesn't need to buy any more drugs. But if his or her symptoms are suppressed, they may be ‘hooked’ on the drugs for life.”

Strong stomach acid accomplishes several things: it activates protein-digesting enzymes and helps us absorb vitamins and minerals like calcium, zinc, iron, folate, and B₁₂. Wright and Lenard offer detailed—and shocking—explanations of the role of insufficient HCl in anemia, osteoporosis, depression, memory loss, and other conditions caused by deficiencies in these nutrients. Further, strong HCl destroys pathogens and triggers subsequent steps in the digestive cascade that are signaled by the proper degree of acidity. The authors explain that “normal stomach

The biggest factor in indigestion, they say, is not too much stomach acid, but too little.

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function is like the first domino in a row: if it doesn't fall as it should, the rest won't, either." If digestion in the stomach is compromised, then the breakdown and absorption of nutrients in the stomach and beyond won't be optimal. In fact, they can be reduced to the point where even if someone is consuming a nutrient-dense diet, they can suffer both sub-clinical and overt deficiencies because they're not assimilating those nutrients. As the authors put it, "If, because of inadequate stomach acid, our breakfasts, lunches, and dinners aren't being digested, then we can't absorb the amount of nutrients from that food that Nature intended. How can we expect to stay healthy if we have chronically poor nutrient absorption due to incomplete digestion?"

Furthermore, the physical problems that can manifest from poor stomach acid are only one side of the coin. We know that individual amino acids (particularly tyrosine, tryptophan, and phenylalanine) are required to make neurotransmitters that facilitate stable moods and psychological balance. If, due to insufficient stomach acid, we don't break down proteins properly, we will not be able to absorb these critical molecules. Thus, there's a logical link between low stomach acid and depression, anxiety, and other debilitating mood imbalances. This link is compounded when we think about the role of fatty acids in mood stabilization. Low stomach acid will not trigger the correct environment for pancreatic enzymes to function optimally in breaking down fats. Sub-optimal fat digestion means we won't benefit from the anti-inflammatory properties of omega-3 fats, nor the wide array of beneficial effects of fats for fertility, skin health, immunity, etc.

Things get even more interesting when Wright and Lenard address allergies, food sensitivities, and autoimmune conditions. Their book was written in 2001, and even though some doctors had been talking about the issue of "leaky gut" decades earlier, it seems that with the resurgence of the Specific Carbohydrate Diet and the popularity of the GAPSTM protocol in the last couple of years, these authors were at least a few years ahead of their time. They acknowledge the compromised physiology of a leaky gut but also contend that if digestion were working full-steam (courtesy of good stomach acid), food molecules would be broken down properly earlier on and fewer large, semi-undigested particles would reach the parts of the small intestine where they're absorbed and pass into the bloodstream, triggering sensitivities and autoimmune reactions.

Beyond this, too little stomach acid can lead to other compromised health situations, many of which are becoming more common: parasitic infection, yeast overgrowth, and overgrowth of pathogenic bacteria. Again, the connections are clear: strong stomach acid is designed to neutralize food-borne pathogens. Also, if foods are not broken down properly, opportunistic bacteria in our GI tracts feed off of them, leading to microbial imbalances in the gut and all the consequences that result.

The authors do an excellent job of addressing a host of conditions that result from too little stomach acid, many of which conventional doctors don't associate at all with digestion. They explain this is because "many of the potential accompaniments of long-term acid suppression, including asthma, allergies, skin disorders, rheumatoid arthritis, insomnia, osteoporosis, gastrointestinal infection, depression, and many, many others, can take years or even decades to develop. They would seem to have nothing to do with stomach acid and, therefore, would rarely, if ever, be reported." They further note that while some of these conditions take a long time to manifest, clinical trials of most acid-lowering drugs generally last only months, making it easy for drug companies to ignore (at best) and cover-up (at worst) any long-term complications. Moreover, they have little interest in exposing flaws in their research. As the authors put it, "It's going to be a long time before conventional medicine gives up its antacid/acid-blocker cash cow."

Besides too little acid, another cause of digestive distress is a weakened lower esophageal sphincter (the ring of muscle between the esophagus and stomach). According to the authors, other things that can weaken this sphincter and cause heartburn and GERD are NSAIDs, calcium channel blockers, beta blockers, and many other OTC and commonly prescribed drugs. So our modern, fast-paced age of stress, chronic dehydration, and popping pain pills and blood pressure medication like they're candy is a recipe for heartburn and indigestion.

Wright and Lenard lay out many strategies for preventing indigestion, none of which require a prescription or a trip to the corner drugstore. A grocery store, maybe, and possibly a health food store with a reputable supply of herbs. Why? Their suggestions include taking apple cider vinegar or lemon juice a little while before meals to ramp up stomach acidity. They also recommend herbs and other natural digestive supports, including ginger, turmeric, bitters,

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probiotics, and digestive enzyme supplements. (No mention of bone broth or fermented foods, but a helping of sauerkraut can work wonders! Also no mention of properly preparing grains or legumes to facilitate digestion.)

While the authors' entire premise is that low stomach acid is the culprit behind a laundry list of medical conditions, they do give a nod to some commonly cited remedies: eating smaller meals; not eating before bed or otherwise reclining; wearing loose-fitting clothing around the abdomen; and avoiding foods that can be esophageal irritants: coffee, spicy foods, acidic foods (tomatoes, citrus), and carbonated drinks.

The biggest weakness I find with this book is that in an otherwise fantastic guide to the debilitating effects of low stomach acid and natural ways of remedying it, the authors completely avoid addressing why stomach acid might be low. Improving it via herbs and enzymes is nice, but that does nothing to illuminate the causes of low acid in the first place. The big guns of digestion come out in the stomach, but digestion really starts in the mind, long before we taste our first bite. The mere smell—and, according to some research, even the thought—of food, triggers

saliva production. It signals to our brain that we're about to receive food and prepares the entire orchestra of the GI tract to start warming up. Stomach acid is suppressed when we're stressed out and hurrying through meals. From a biological standpoint, feeling anxious is a sign that we're in a dangerous situation, and during times of danger, digestion is not the body's first priority. The familiar "fight-or-flight" mechanism causes most of our blood and energy to be shunted away from the GI tract and toward the muscles and lungs, which would help us run for our lives. Digestion's second stop is the mouth. We need to chew thoroughly and allow our saliva to mix with the food until it's almost liquefied. Not only does this bring the physical and chemical breakdown of food further along, but it makes the stomach's job easier: the more thoroughly the food is chewed when it reaches the stomach, the more surface area the enzymes have to work. Proper chewing is like giving the stomach a head start. It's a shame the author makes no mention of being calm, being hydrated, and chewing sufficiently. The stereotype of the stressed-out, busy executive wolfing down her lunch and barely chewing before she runs off to her next meeting and then spends the rest of the day popping antacids is based in physiological truth.

This book is a must-read for anyone suffering from any type of indigestion as well as medical conditions of unknown etiology. There's a chance that simply boosting stomach acid can have profound effects upon health. I also recommend it for healthcare professionals. Conditions typically treated via expensive, invasive, and harmful procedures and drugs might be improved by something as low-tech as lemon juice.

Review by Amy Berger


FORAGING & FEASTING: A FIELD GUIDE AND WILD FOOD COOKBOOK

By Dina Falconi, Illustrated by Wendy Hollender

We have been eagerly waiting for this book, by longtime chapter leader Dina Falconi, and we are not disappointed! *Foraging & Feasting* begins with a series of beautiful illustrations of the major wild edible plants, followed by a chart on culinary uses and then a great collection of recipes, all according to the principles of proper preparation found in traditional diets. Just leafing through the beverage section is a delight. Recipes include herbal infusions, herbal teas, *agua frescas*, wild fruit smoothies and a large selection of kefir sodas; Nettle Ginger Soda is one I look forward to making next spring.

Other sections include Relishes, Spreads and Condiments with yummy offerings like Wild Green Pesto and Wild Tapenade, Fruit Chutney preserved in olive oil and Fruit Catsup. The many tempting recipes for wild salads include herbs like sheep sorrel, dandelion greens, chickweed and purple dead nettle. Soups include Wild Green Soup, Root Bisque and Cold & Creamy Fruit Soup. Eggs are combined with wild herbs in a variety of creative ways. Recipes for cooked wild herbs, herbed meats and desserts are also included.

The great thing about the recipes section is the provision of a master recipe, so you can learn the basic techniques, followed by several variations. After all, when you are cooking with wild plants, you often have to improvise.

Published in hardback with a beautiful cover, this is the book to give to friends and family for the holidays. Thank you Dina and Wendy for this wonderful contribution to food preparation that is both nutritious and delicious. Thumbs Up. 

Review by Sally Fallon Morell

Technology as Servant

LET THERE BE LIGHT!

By John Moody

Light. We tend not to think too much about it. . . until the lights go out. But exposure to light has a number of powerful effects on our health and wellness. Proper lighting helps us to relax, starting processes that aid the mind and body in preparation for sleep. Proper lighting helps regulate and keep in sync various hormonal and other body cycles on a daily basis, affecting sleep, mood, digestion and many other processes.

Proper lighting in the correct spectrum has been shown to have a significant impact on our emotional wellness, especially during the winter; so much so that people can now get a prescription for light to help alleviate seasonal light deficiencies.

Real light, like real food, is true medicine. So how do we make modern advancements in lighting our loyal servant?

START NATURALLY

First and foremost, nothing can replace exposure to real, natural sunlight in the outdoors, just as no supplement can replace real food. Our bodies were made for exposure to real light. Real light causes our body to synthesize the ever-so-important vitamin D. Real light is cleansing, helping cleanse us of harmful pathogens on our clothing, skin and entire body.

People should strive every day to enjoy direct, unimpeded exposure to real sunlight. In the summer, depending on various factors, an individual may need to be careful to avoid over exposure and sunburn, especially during the heat of the day. In the late fall through early spring, because the sun is much weaker in the temperate regions of the Northern Hemisphere, greater exposure is necessary and less caution required.

DESIGN WISELY

Next in importance to outdoor sun exposure is the endeavor to bring as much natural light into our indoor life as possible. Modern advances in window treatments and home design make

getting more light into our living and working spaces a much easier task. When building, renting, buying or remodeling a home or office space, the amount and quality of natural light the structure allows into the living and working spaces should be carefully examined and given high priority.

Homes should be oriented and sited for maximum natural light potential and passive solar gain. Interior floor plans should take into account how to best make use of incoming light as well, especially to avoid creating cave-like spaces (except for sleep, where creating a room that naturally stays cool and very dark in our artificial-light-polluted world is a blessing!).

When building or remodeling a home, don't neglect small design changes—skylights, bay windows and the like—that can substantially improve the mood and healthfulness of your house!

CHOOSE CAREFULLY

If someone wanted to go without electricity or was forced to do so for a period of time, there are a host of traditional lighting methods available: candles, lanterns, glass fronted wood stoves and others. But these methods are not without drawbacks.

The two major concerns to keep in mind are indoor air pollution and the risk of house fire, with minor concerns regarding the quantity and quality of the light.

INDOOR AIR POLLUTION

Candles and other open flame lighting methods create soot (or, for those using wood stoves, creosote), a byproduct of the incomplete combustion of the fuel source along with carbon monoxide and other possible pollutants.

Some oils and oil blends burn more cleanly than others. Note that incense, potpourri and similar items have the same concerns. The brighter the candle, the worse the problem: darker, bluish

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flames are a sign of cleaner burning and more complete combustion, but also give a less usable and enjoyable light.

Some sources of fuel and scent contain or create toxic byproducts when burned. Beeswax and soy candles are the cleanest, producing little to none of these byproducts if burned properly, so choose unscented candles or at least those scented with only pure natural sources of fragrance, such as essential oils, and without too strong a scent.

Avoid paraffin candles. Also, watch the wicks. Many candles, especially those produced in China, have wicks that contain lead and other contaminants, putting off small amounts into the air and home environment every time they are burned.

RISK OF FIRE

Almost any traditional method of heat and light brings with it the risk of fire. Exercise prudence and caution when using any combustion-based light and heat sources, indoors or out. Keep flammable objects and materials at a safe distance; don't leave candles and other fire-based lights or cooking tools unattended, and place them on stable and safe surfaces.

BE IN THE LIGHT

One other concern about combustion based light sources is the nature and quality of the light. While it is enjoyable to sit and watch a fire in my wood stove in the soft late autumn

evenings, chatting with family or friends, it is not conducive to reading or other sorts of work. To achieve sufficient light for even basic tasks often requires a large number of light sources, thereby increasing the problems outlined above. Lanterns of similar lighting options outshine candles in this regard. If you are planning to use such things for creating an environment enjoyable to read and work in, it pays to invest some time in finding the best models and designs currently available.

This is not to say that people should not have or use older lighting methods, just that we need to recognize their limitations and the blessings and dangers that both traditional and modern lighting create.

UPGRADE TECHNOLOGICALLY: LEDs

As I discussed in a previous article, compact fluorescent light bulbs (CFLs) are a dangerous choice for electrical lighting. So to what can people turn?

LEDs (light emitting diodes) are the next option, offering superior light quality, longevity and durability. While some researchers have raised concerns about the lead and other materials used in LEDs, these concerns appear exaggerated.¹ The amount of lead and other heavy metals used in LEDs is quite tiny and the metals are encased in extremely difficult-to-break hard plastic shells, not in delicate and fragile glass bulbs. If you manage to break an LED, you should still employ safe cleanup procedures, being especially careful of red and other similarly colored bulbs, which

ADDITIONAL BENEFITS OF INCANDESCENT LIGHTING

For those who frown upon incandescent light bulbs because of their greater energy usage, a few facts should be considered before you switch over to other options.

1. In the winter, the extra energy that incandescent bulbs use is turned directly into heat and the heat is generally located just where it is needed; that is, where people congregate. Thus, in cooler seasons and climates they actually serve as a very effective method of zone heating/space heating. According to a study by the Mackinac Center for Public Policy, "The heat of incandescent lights—more than 341 Btu per bulb per hour—can help to warm a room. Therefore, if the cost of electricity is low relative to the cost of home heating fuel, there may be an economic case for changing to incandescent bulbs in colder seasons."²
2. In the summer, lights are used far less because of the longer days and brighter natural light, thus mitigating and minimizing the need for and heat creation of interior lighting, especially among people who heed nature's wisdom and go to sleep when it is dark!

Unsurprisingly, pro-CFL studies and literature overlook this more complex and less favorable picture of energy use, light quality, pollution creation, lifespan, disposal, and efficiency versus incandescent bulbs.

generally contain the most lead, arsenic and other heavy metals.

The life of an LED is extremely long, greatly reducing the environmental impact (and unlike CFLs, their rated life and real life are genuinely very similar).

Proper disposal of *any* bulb or electronic device is a must, not just LEDs! The computer the scientist uses to research his critique of LEDs often contains significantly more chemicals and heavy metals than the LED lights that will in most cases rarely come into direct contact with one's body. Remember that computers, cell phones, iPods, iPads, and a hundred other gadgets contain significant amounts of the same compounds.

This is not to say that LEDs cannot be made safer or be improved upon, just like a wide range of other electronics, and thankfully such improvements are already starting to appear. But compared to CFLs or any other lighting options currently on the market, they are significantly superior in terms of light quality, longevity, safety and environmental impact, especially in hot climates.

The main drawback to LEDs currently is cost. They are three to five times more expensive than CFLs, though they continue to drop in price rapidly as consumers realize the dangers, dismal performance and deceit surrounding CFLs. Shopping sales (such as Newegg, where I purchased the ones I tested heavily before writing this article) can result in significant savings.

Sadly, while many power companies give away free CFLs, I have yet to see any LED

giveaways, but perhaps with customer input and pressure this will change.

LET THE SUN SHINE IN!

I hope that this article will persuade readers to make creative efforts to maximize natural light in their homes and daily routines, while reducing dependence upon electrical light. If you are remodeling, make your plans with natural light in mind. Indeed, make bringing natural light into your home a high priority via large, well-oriented windows, skylights, open floor plans, and proper colors can all significantly reduce your needs for electrical or combustion-based lighting. ☺☺

John Moody lives on a small farm in Kentucky, where he tries to keep track of a flock of chickens, a large garden, four wonderful kids, a beautiful wife, and the needs of the members and farmers of the Whole Life Buying Club which he serves in the role of administrator. John is the author of The Food Club and Co-op Handbook.

SOURCES

1. <http://www.scientificamerican.com/article.cfm?id=led-lightbulb-concerns> While there are many articles on LEDs and their heavy metal content, every single article I have reviewed goes back to a single study done in Irvine, California.
2. <http://www.mackinac.org/article.aspx?ID=8868>

The main drawback to LEDs currently is cost.

DESIGN IDEAS TO INCLUDE MORE NATURAL LIGHT

1. Fewer walls: the more open a house, the more light naturally enters into the living spaces.
2. Skylights.
3. Light colored paint: paint choice can go a long way towards naturally brightening and enhancing natural light once it enters a living space. A single window in a dark-colored room creates a cave, but in a bright room creates an outdoorsy feel.
4. Don't obstruct your windows.
5. Make sure your curtains can be drawn back fully to allow maximal light to enter rooms.

Be sure to avoid CFLs. There is still time to stock up on the old-style incandescent bulbs, or choose LEDs over CFLs. Finally, expose yourself to natural light as much as possible. Cook beyond your kitchen. Garden. Take your lunch break outside when weather permits. Always seek to be in the light; your body and soul will thank you for it!

Legislative Updates

CONGRESS FLEXES NEW MUSCLES,
WHILE BECOMING MIRED IN FARM BILL DEBATES
By Judith McGeary, Esq.

When Congress passed the Food Safety Modernization Act (FSMA) in 2010, it gave the Food and Drug Administration (FDA) significant new powers. For a couple of years, the agency did very little with its new authority. But now the FDA has proposed rules that fulfill some of the worst predictions of what the agency might do.

The proposed rules address two key provisions of the FSMA:

- **On-Farm Produce Standards Rule:** Creates requirements for every aspect of growing and harvesting fruits, vegetables and nuts.
- **HARPC Rule:** Requires businesses (including farms) that pack, store, or process foods to do hazard analysis and risk-based preventative control (HARPC) plans.

These two provisions are explained in greater detail below.

The ultimate effect of these rules will be to reduce the safety of our food supply by increasing our reliance on foreign food sources. The U.S. already imports about 15 percent of our food supply, including nearly 50 percent of fresh fruit and 20 percent of fresh vegetables. Less than 1 percent of this imported food is inspected by the FDA, and the agency itself says that it doesn't have the capacity to inspect more than 2 percent. This problem is supposedly being addressed through new requirements for importer verification, so that the foreign suppliers will be held to the same standard as domestic. But whatever is written on paper, it is certain that food coming from places such as China and South America will not actually be held to the same standards as will be imposed on U.S. producers.

It's important to realize that these are only proposed rules. Nothing is final yet. Farmers and consumers have until November 15, 2013 to file comments with the agency, and it is critical to do

so. It's also vital that anyone concerned with the survival of sustainable agriculture and the local food movement should contact their legislators—both before and after the comment deadline—to urge Congress to limit the agency's power.

THE TESTER-HAGAN EXEMPTION

When Congress passed the FSMA, it included a very important provision—championed by Senators Jon Tester (D-MT) and Kay Hagan (D-NC)—to exempt small-scale, direct marketing producers from the on-farm produce standards and HARPC requirements. Specifically, farmers or food producers who sell less than five hundred thousand dollars per year, and who sell more than half of their products directly to individual consumers or to local restaurants and retailers, are exempted from the produce safety and HARPC rules.

This exemption is vital to the survival of the local foods movement. Unfortunately, in the final negotiations on the Tester-Hagan amendment, Congress included a provision that allows the FDA to revoke the exemption under certain conditions. The revocation must be done on a case-by-case basis; in other words, the FDA can revoke the exemption on Farm A, but cannot revoke the exemption on all the farms in the country or in a state.

Although limited to targeting individual farms, the FDA's proposed rules implementing this provision are deeply worrisome because FDA claims authority to revoke a farmer's or processor's Tester-Hagan exemption based almost entirely on the official's discretion. If an FDA official decides that a farm or processor is connected to a foodborne illness outbreak or that revocation is "necessary" to "protect the public health and prevent or mitigate a foodborne illness outbreak based on conduct or conditions associated" with the farm or processor, the official can

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issue a letter revoking the exemption. The farmer or processor has only ten days to respond to the FDA's actions, including collecting all of the evidence that supports a continued exemption; no other information can be provided after those ten days.

An FDA hearing officer then decides whether or not to hold a hearing. If the hearing officer agrees with the decision to revoke the exemption, the producer has only sixty days from the date of the original letter from the FDA revoking the exemption to come into full compliance with all the newly applicable regulations. In contrast, large-scale industrial farms have two years to come into full compliance. While the producer may appeal the decision to a court, many appeals will be meaningless because the producer will have to comply with all of the regulations during the appeal, which would most likely put them out of business before their appeal is ever heard by the court.

The number of farms targeted this way by the FDA is likely to be small, but it will be devastating for those affected. We have already seen the harm that targeting individual producers can have in the case of raw milk and raw cheese producers. The uncertainty of not knowing who might be the agency's next target will have a chilling effect on many small producers, unless the FDA is forced to change its proposal to comply with the spirit as well as the letter of the Tester-Hagan provision.

ON-FARM PRODUCE SAFETY STANDARDS RULE

For farmers who don't qualify for the Tester-Hagan exemption or whose exemption is revoked, the proposed produce safety rules cover every aspect of growing and harvesting crops, including worker training, hygiene, domestic livestock, wildlife, and buildings and equipment. All of these provisions carry record-keeping requirements and give FDA inspectors significant discretion in determining what is "appropriate" or "reasonable." Thus, the proposed rule not only imposes significant costs, but it also creates significant uncertainty and risk for producers.

Fundamentally, the rules take an approach of "guilty until proven innocent" for natural farming methods, while giving chemical methods

a free pass. Thus, the safety and health issues posed by pesticides and herbicides are not addressed at all in the proposed rules, but major barriers are placed in the path of those farmers who wish to use fertilizers such as manure or compost tea, or who integrate livestock with fruit and vegetable production.

Anything involving animals at any stage appears to terrify the FDA. The agency categorizes all animal-based soil amendments as "treated" or "untreated." In order to be considered "treated," a manure-based compost must be processed using specific methods and meet specific microbiological standards. Even treated compost requires farmers to wait forty-five days in between application and harvest of the crop. "Untreated" animal-based soil amendments—including raw manure, compost made using alternative processes, vermicompost or worm castings, and compost teas with any additives such as molasses or kelp—have to be applied at least nine months prior to harvest. In practical terms, the use of manure and many other proven organic soil amendments will be forbidden unless the farmer can produce scientific evidence showing, to the FDA's satisfaction, that his or her methods are safe.

When it comes to having animals on the farm, FDA continues its unscientific and fear-based approach. Until the 1950s, most farms in the U.S. were diversified small farms that had both livestock and crop production. Yet the agency ignores the proven track record of this type of farming, creating extensive regulations for the presence of both domestic livestock and wildlife on the farm. In an effort to avoid the criticisms that have been leveled against the Leafy Greens Marketing Agreement, the agency is careful to say that farmers do not necessarily have to create a sterile, lifeless buffer zone; at the same time, however, it's unclear how a farmer can meet the regulatory requirements without doing precisely that.

PREVENTATIVE CONTROLS AND THE HARPC RULE

As with the produce safety rule, small-scale, direct-marketing producers are exempt from the Preventative Controls rule under the Tester-Hagan amendment. For processors who don't

The ultimate effect of these rules will be to reduce the safety of our food supply by increasing our reliance on foreign food sources.

qualify for the exemption or whose exemption is revoked, the Preventative Controls rule requires that any business that packs, holds, processes or manufactures food creates a Hazard Analysis and Risk-Based Preventative Control (HARPC) plan. This encompasses a large number of low-risk activities that farms, food hubs, and cooperative produce distributors normally conduct, such as packing fruits and vegetables, milling grains and making maple or sorghum syrups.

A few, very limited on-farm post-harvest activities are exempt, but only on the farm's own produce. All of the following would be subject to the HARPC requirements: two farms running a joint CSA and handling each other's produce; a farm that stores food from any other farm or producer (even if they do no processing); and all sorts of "food hubs" that distribute food from multiple local producers. In effect, FDA treats a legal event—the change in the possession of a crop—as a safety hazard, despite all scientific evidence to the contrary. In addition, even many low-risk activities conducted by a farm on its own produce would be subject to the rule, such as dehydrating fruits and vegetables or making jam.

A business subject to the Preventative Controls rule must conduct a "hazard analysis" of all its operations to identify potential food safety threats and steps to control them. Estimates of the costs of such plans indicate that they can cost thousands of dollars, up to twenty thousand dollars for a small operation in the first year. The rule then requires annual "verification" that the plan is working, with records of this verification process and its findings.

The scope and complexity of the paperwork that will be required is daunting for both on-farm and off-farm processors. In the early 1990s, similar HACCP requirements resulted in many small- and mid-scale slaughterhouses having to shut their doors. The FDA's proposed rule has the potential to put an end to many of the exciting innovations taking place right now with local food hubs, community processing facilities and the other infrastructure so vital to re-establishing local food systems.

WHAT HAPPENS NEXT?

Some members of congress are becoming aware of FDA's overreaching. Representative Dan Benishek (R-MI) introduced an amendment to the Farm Bill, which was adopted by the House, to require the FDA to do a full analysis of both the science and the economic impact of any rule proposed under FSMA before enforcing it. While the Farm Bill's future is uncertain (see below), it is important to build support for this amendment so that it is included in some bill, whether the Farm Bill or another.

At the same time, we need to create pressure directly on the FDA to make changes. The agency is accepting public comments on the proposed rules until November 15, 2013. See the sidebar for more details and sample talking points.

FARM BILL CONFUSION

While we hope that the Benishek Amendment will make it into the final Farm Bill, it's far from clear that any Farm Bill will pass this year. The Farm Bill is a massive piece of legislation that comes up approximately every five years. Last year was supposed to be a Farm Bill year but, as

usually happens when the Farm Bill falls during an election year, Congress did a short-term extension, leaving it to be taken up yet again this year.

The Farm Bill has between ten and twelve titles dealing with a wide range of topics, including conservation, trade, credit, rural development, research and much more. The two titles that draw the most publicity are the commodities and the nutrition and food stamp programs. For decades, these two sections of the Farm Bill have been linked together to ensure its passage; rural legislators support the bill because of the subsidies provided in the commodities title, and urban legislators support the bill because of the food assistance dollars.

The Senate passed its five-year Farm Bill back on June 10. It contained no real surprises, including modest cuts to the food stamp section. The House took up its version of the Farm Bill ten days later and, in a move that shocked most political observers, voted it down.

A few weeks later, the Republican House leadership brought up a controversial idea: split the Farm Bill into two parts and leave the nutrition and food stamp programs out of the bill. In July, the House passed this chopped up version of the Farm Bill, with a vote on party lines.

The House version of the Farm Bill had another, far more radical change. For decades, farm bills have been written so that if they expire, we revert to "permanent law" from the 1930s and 1940s. Up until this year, the threat of reverting to these old laws motivated the Congress to actually finish the farm bill. But the bill as passed by the House took out the permanent law provisions, so if a future farm bill expires, we would revert to the farm policy being debated today. Whether you like the laws from the '30s and '40s more than the current farm bill or not, removing the threat of permanent law removes the only incentive for a gridlocked Congress to actually pass a new farm bill. This has the potential to end the farm bill process as we have known it for decades, and not in a manner that encourages the sort of deep, systemic changes that are needed.

Splitting the bill makes it harder to actually finish the farm bill process. The House and Senate versions of the Farm Bill must now be reconciled through a conference commit-

tee. The Senate will not accept a farm bill that omits the nutrition and assistance programs; even if this change somehow got through the Senate, the President has said he would veto the bill the House passed. At the time this article goes to print, the House leadership had not even appointed members for the conference committee, although the Senate members were named before Congress recessed in August. The Farm Bill process is always full of twists and turns, but this year's developments have been full of surprises that make it impossible to predict what may happen next.

WHAT YOU CAN DO

Whatever happens with the Farm Bill, it is vital that your elected officials know how you feel about your food! You can find out who represents you by going to www.house.gov and www.senate.gov or by calling the Capitol Switchboard at 202-224-3121. Ask to speak to the staffer who handles agricultural issues. Explain that you're a constituent and that high-quality food is very important to you. Ask for their support for the Benishek Amendment in the Farm Bill (or a similar provision in another bill, if the Farm Bill doesn't pass). It is the responsibility of Congress to rein in the FDA and prevent the damage that would be done by the proposed FSMA regulations. ☺☺

COMMENTING ON THE FDA'S PROPOSED RULES

Below are some talking points that you can use when submitting comments on the FDA's proposed rules under FSMA. It is important to personalize your comments, so be sure to include at least a couple of sentences about who you are and why these issues are important to you. If you are a farmer or food producer, you will have the greatest impact by pointing out the specific problems these rules will cause for your business and then sending a copy of your comments to your U.S. representative and senators.

To submit comments on each rule, go to:

- On-Farm Produce Rule: www.regulations.gov/#!submitComment;D=FDA-2011-N-0921-0199
- Preventative Controls/HARPC Rule: www.regulations.gov/#!submitComment;D=FDA-2011-N-0920-0188

Tester-Hagan exemption (both rules):

1. The FDA should be held to specific, evidentiary standards before it can revoke a farmer's or food facility's Tester-Hagan exemption.
2. A farm or facility that is exempt under the Tester-Hagan amendment should be given at least ninety days to submit evidence and defend its exemption if FDA seeks to revoke it.
3. If the exemption is revoked, the farm or facility should have at least two years to come into compliance with the FSMA rules. The FDA has other mechanisms it can use if there is an immediate threat of foodborne illness.

On-farm produce safety standards rule:

1. The FDA's approach to traditional farming methods, such as diversified livestock-crop farms, the use of working animals, and the use of biological soil amendments, is fundamentally flawed. The agency should not restrict these sustainable methods of farming absent data showing an actual, verified increased rate of foodborne illness; the simple fact that these methods include diverse microbiological communities is not a sound basis for restricting them.
2. The waiting period between applying manure and harvesting the crop should be no more than one hundred twenty days, as has been the certified organic standard for almost two decades. Similarly, there should be no waiting period between applying compost and harvest. The excellent track record for safety on organic farms shows that this standard is sufficient.
3. Compost teas should be treated the same as compost, whether or not there are additives such as molasses or kelp meal included.
4. Water testing for irrigation and washing water should not be required more often than once a month, and farmers should be able to test less frequently after establishing the safety of their water source through three consecutive negative tests.

Preventative Controls and HARPC rule:

1. Low-risk activities conducted by a farm using its own products, such as making jams, grinding grains, or dehydrating vegetables, should not be subject to these regulations.
2. Low-risk activities, when conducted off-farm or by multiple farms working together, should not be subject to the same requirements as high-risk processing activities.

Soy Alert!

SINGING THE BLUES: SOY DOES ZIP FOR PROSTATE CANCER PATIENTS

By Kaayla T. Daniel, PhD



Does soy prevent prostate cancer or cut the risk of recurrence? With one out of six U.S. men developing prostate cancer over their lifetimes, lots of people would like to think so. Although the soy industry loves to market its products every September during National Prostate Cancer Awareness Month, this year they should not be out wearing light blue wristbands and ribbons and shilling soy milk in pretty blue containers. Rather they should be inside singing the blues.

DISAPPOINTING RESULTS

Why so? Bad news for the soy industry came July 10 when a *Journal of the American Medical Association (JAMA)* study showed soy won't prevent the recurrence of prostate cancer.¹ The study, from the University of Illinois, Chicago, proved "disappointing" even to its own researchers, who had fully expected soy to help prevent prostate cancer recurrence. Lead researcher Maarten Bosland, DVSc, PhD, said he was disappointed, but pleased at the clarity of the results. "The results were statistically very solid and the lack of treatment effect convincing. A lot of men think that soy might be beneficial, but this study shows that it's not."²

The researchers looked at one hundred seventy-seven men with an aggressive form of prostate cancer who had submitted to prostatectomies and were at high risk for recurrence. Supplement intervention was begun within four months after surgery and continued for up to two years, with prostate-specific antigen (PSA) measurements made at two month intervals during the first year and every three months thereafter. Eighty seven men drank a soy beverage containing 20 grams of soy protein isolate and 90 men received the placebo of calcium caseinate. The study was stopped early because the "treatment" was obviously ineffective.

As expected, soy proponents have been whining that the study was badly designed, poorly executed, and too small to be definitive.³

In fact, this was a randomized, double-blind trial conducted from July 1997 to May 2010 at seven U.S. centers. A larger study would have been highly unlikely to show the desired result or would have found it at a level so small as to be insignificant. The soy drink and placebo groups were carefully randomized and did not differ significantly in the distribution of risk factors, including the risk of recurrence. Adherence was better than 90 percent, and there were no differences in adverse effects between the two groups.

Given that the "placebo" was calcium caseinate, soy did very poorly indeed. Casein is a fractionated, poor-quality protein seriously deficient in cysteine (a conditionally essential amino acid needed for immune support and detoxification) and rich in MSG and other dangerous residues created during high temperature processing. Though widely perceived as a neutral placebo protein, casein is routinely used in studies designed to make soy look good, particularly studies on soy, cholesterol and heart disease.⁴

Although the news headlines said the treatment had no effect, twenty-two of the soy patients and twenty-three of the placebo patients had prostate cancer recurrence. Interestingly, recurrence for the soy patients came faster (average of thirty-one and one-half weeks), compared to the placebo group (average of forty-four weeks). While this difference was "statistically insignificant," it certainly is interesting. It raises the question of whether the real reason this study was stopped prematurely was not because soy proved so ineffective but because risks were beginning to emerge.

NOT EVERYONE CREATED EQUOL

The *JAMA* article references a few studies that suggest soy can be helpful in prostate cancer, but overall the research on soy and prostate cancer is inconsistent and contradictory.⁵ Some studies suggest soy increases prostate cancer risk, others suggest it decreases and still oth-

The study was stopped early because the "treatment" was obviously ineffective.

ers show no effect at all. A few of the human studies suggest that if soy reduces the risk of prostate cancer it does so only for those who produce equol.^{6,7} Equol is a metabolite of the soy isoflavone daidzein that only some people are able to produce in the intestines. Given that the soy industry likes to promote its products as beneficial for everyone, equol has been an issue the soy industry prefers not to talk about.

Soy proponents also rarely tell men that if soy protein protects them from prostate cancer it is because it has a feminizing effect. The high levels of soy that might be useful in prostate cancer prevention or treatment will significantly decrease testosterone and other androgens and increase estrogen. Doctors who believe prostate cancer depends on exposure to male reproductive hormones recommend soy because its estrogens perturb natural hormone concentrations and ratios. While this theory might lead to valid pharmaceutical applications in cancer treatment, it seems inadvisable as a preventive treatment for the entire male population. Testosterone, after all, has multiple beneficial uses in the body, including growth, repair, thyroid function, red blood cell formation and immune support, as well as its well-known manly roles in sex drive and reproduction.

Men who have been urged to consume soy to prevent or reverse prostate cancer might also want to consider the warnings of Daniel Doerge, PhD, and Hebron C. Chang, PhD, of the FDA's National Laboratory for Toxicological Research, who discovered that "genistein interferes with estrogen receptors in rat prostate glands" and warned that this finding might have "implications for reproductive toxicity and carcinogenesis."⁸

Brain damage is another possibility. Soy isoflavones have decreased both brain and prostate weights of rats and also altered the structure of the sexually dimorphic brain region. The sexual dimorphic nucleus is located in the diencephalons at the base of the hypothalamus and is sensitive to estrogen and testosterone in gender-specific ways, that is, differently for males and females.^{9,10}

Finally, researchers who tested a lowfat, high-soy diet on prostate cancer patients found an insignificant decline in PSA levels, a modest

effect on time to progression of TTP (another prostate cancer marker) and an undesirable increase in IGF-1 serum levels.¹¹ IGF-1 stands for Insulin-like Growth Factor. Circulating IGF-1 concentrations increase the risk of prostate, bladder, colorectal and breast cancer and have been implicated in heart disease, Type 2 diabetes and osteoporosis. So far the research indicates soy increases IGF-1 levels only in men.¹²

The takeaway? Dr. Bosland and his team were pro soy. Although disappointed in the results, they nonetheless speculated that men who start eating soy earlier in life would be more likely to enjoy prostate protection. They also concluded that soy was at least known to be "safe" and should be eaten because it might well offer other benefits. Yes, it might though I would say the populations most likely to benefit would be monks trying to maintain their vows of chastity, politicians with a zipper problem and unfaithful husbands. For the rest of our men, the body of research suggests the wisdom of abiding by the precautionary principle of better safe than sorry. ☯☯

Kaayla T. Daniel, PhD, is The Naughty Nutritionist™ because of her ability to outrageously and humorously debunk nutritional myths. She is vice president of the Weston A. Price Foundation, on the Board of Directors of the Farm-to-Consumer Legal Defense Fund, and author of The Whole Soy Story: The Dark Side of America's Favorite Health Food. She will be speaking on the history and science of broth at Wise Traditions 2013 in November. Kaayla's primary website is: <http://drkaayladaniel.com>.

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MUCH ADO ABOUT NOTHING
By Sylvia Onusic, PhD, CNS, LDN

Forget sequestration-reducing funds for Head Start and Meals on Wheels, the world financial crisis, and rising unemployment. Thomas Badger, director, and his team at the USDA-ARS Children's Nutrition Center in Little Rock, Arkansas continue to feast at the trough of public funding *ad libitum* as they churn out paper after paper on the data collected from the "Beginnings Study." The sole purpose of this study is to make soy formula look good, no matter what the cost.

In this expensive on-going study, babies participating were recruited throughout the Little Rock area, not nationally or state-wide. This is no random sample. The babies' feeding method was already predetermined. Sometimes the babies entered the study after two or three months. There is no control, double blind, or any of those research gold standards included in this study. The majority of babies are Caucasian. Parents are paid for their time. Paying participants is controversial, some insisting that payment of research subjects is unethical. The parents get free formula or diapers (if mom is nursing), and monetary compensation: at every yearly visit starting at one hundred twenty five tax payer dollars for the first year, and up to two hundred twenty-five for the sixth year visit." Moreover, "other compensation," which is not defined, "may be provided for the full completion of each study visit." In terms of time commitment, there are seven study visits during the first year of life, one visit at eighteen months, and then yearly visits thereafter until the sixth birthday, which take four to six hours on average.

"Beginnings" follows a group of babies fed breast milk (BF), cow's milk formula (CMF), and soy formula (SF) for six-years, comparing various health and cognitive measures along the way. In the *Wise Traditions* article, "More Government Promotion of Soy Based Infant Formula," we presented a serious analysis of the many flaws apparent in one of the papers produced by this team, "Developmental Status of 1-Year-Old Infants Fed Breast Milk, Cow's Milk Formula, or Soy Formula," published in *Pediatrics* (2012).¹⁻²

In 2013 the same group published another paper from the "Beginnings" study data, which attempted to create doubt about the view that breast milk is best for baby. They focused on body fat and bone mineral content of this same group of infants (in this case, the majority were white boys) and basically said that BF babies are fatter and have lower bone mineral composition (BMC) at one year of age compared to the SF babies.³ Badger called the SF babies, "the leaner body composition phenotype." The SF babies deposited less FM (fat mass) than the CMF or BF infants during their first year.

Even though "study results found that SF-fed infants were significantly leaner than the BF infants through year one as indicated by a greater total FFM (free fat mass)," out of all three groups, the SF fed babies weighed significantly more than the BF or CMF babies at six, nine and twelve months, and they gained significantly more weight (grams per day), than the BF and CMF babies. Farmers feed their livestock soy to fatten them up. Does it work the same way in humans?

There was no control for ensuring that the exclusive diet was followed for each group. "Exclusive breastfeeding was defined as feeding solely with breastmilk up to age six months" but only 56 percent of the babies were exclusively breastfed until twelve months. Some were switched to CMF at age six to twelve months, yet these were classified as BF. Juices, cereals and solid foods could be introduced at age four months in all three groups but no record was presented describing how much of these foods were ingested by the babies. The formula intake was measured from a three-day food record. In other words, no consideration was given to the introduction of variables which could prejudice the results. We don't know for sure the number of babies who were exclusively breastfed for the first year, and specifically the diet of the breastfeeding mothers.

Furthermore, there is a problem with the calculation of body composition using the DXA (dual-energy X-ray absorptiometry) scan. This test is usually used to measure bone density, but here it is used to show fat-free mass as well as BMC. It is an indirect method for measuring body composition and allows for predictions and assumptions only. Throughout the procedure, the baby must be asleep on a blanket without moving. If there is any movement by the baby, the scan must be discarded. How many babies made the grade? At twelve months, twenty-three in the BF group; seventeen in the CMF group; and eighteen in the SF group, a very low number of babies upon which to generalize the grand findings of this study. Much ado about nothing.

In this paper we don't see any real data but "mean predicted total based on fitted covariate adjusted mixed model, adjusted for age, sex, race, gestational age, birth weight, birth length, feeding history and mother's SES (social economic

status)." There are no frequency charts, scatter plots, or other visual aids to give us a look at the actual groupings. For example, babies' birth weights were anywhere from six pounds to nine pounds, but the progress of these babies is not followed separately but averaged into a mean. We don't know whether the larger babies lost weight or continued to gain, for example. The socioeconomic status of the moms computed using the Hollingshead Four-Factor Index of Social Scale Status, ranges from eight to sixty-six. How many moms were in each category? Which scores of moms breastfed or fed formula? We don't know because we have no access to that data.

The SF babies displayed a "unique bone accrual profile [the way they built their bones] with lower BMC [bone mineral content] at age three months followed by great bone accretion [gain] thereafter as compared to the BF and CMF babies." Up to three months the BF babies had a higher BMC (bone mineral content) but by age nine to twelve months the BMC was higher in the SF babies.

The "unique bone profile" of SF babies may indeed be attributed to other factors. A 1993 paper from a research group at the Departments of Pediatrics at the University of Cincinnati and University of Pittsburgh, (PA) and Ross Laboratories, found that the BMC was similar in all feeding groups *but* the vitamin D levels were "consistently elevated in infants fed Prosobee" which "is usually perceived as . . . inadequate mineral intake or high mineral need."⁴ Prosobee was one of the soy-based formulas used in this study.

Another factor for the heavier bones in the SF babies may possibly be attributed to fluoride (F). Not only does soy formula contain fluoride but it is very possible that babies in this study are drinking soy formula made with fluoridated water. According to the Center for Disease Control (CDC)'s "My Water's Fluoride," the Central Arkansas Water supplying Little Rock serving over three hundred thousand people is fluoridated with an optimal fluoride level of .80 mg/L.

Soy formula contains much higher amounts of fluoride than BF or CMF, as well as other problematic minerals such as aluminum, manganese and cadmium.⁵ Human breast milk contains virtually no fluoride, a mere four parts per billion, about two hundred fifty times less fluoride than is added to water in fluoridation programs. Thus, fluoride cannot be considered an essential nutrient as some dentists claim.⁶

The single clearest effect of fluoride on the skeleton is that it stimulates the osteoblast cells to build new cells resulting in increased bone density. If these new cells are not mineralized, rickets can result. Because fluoride stimulates increased cell building, there is the risk that it may induce malignancy in the bone, and fluoride may become an independent risk factor for new osteosarcomas.⁷ Indeed several studies have closely linked the development of osteosarcomas in boys with fluoride intake.⁸

Infants fed formula made with fluoridated water ingest the highest fluoride dose from water of all age groups in the population.⁹ Some practitioners still recommend fluoride drops be given to babies. In 1994 the American Dental Association and the American Academy of Pediatrics reversed their prior advisory and recommended that these supplements *not* be used with infants. In 2007 the American Dental Association warned that parents of children under one year "should consider using water that has no or low levels of fluoride" when mixing baby formula, due to concerns about fluorosis, damage to the enamel of the teeth, which is a sign of excessive fluoride intake.¹⁰

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A Campaign for *Real Milk*

THE GREAT MILK ROBBERY

By Charlotte Smith

The following is a summary of a report by Grain (grain.org), a small international non-profit organization that works to support small farmers and social movements in their struggles for community-controlled and biodiversity-based food systems. They are based in Barcelona, Spain. The full title of the report is The Great Milk Robbery: How corporations are stealing livelihoods and a vital source of nutrition from the poor.

"A battle over dairy is underway that will profoundly shape the direction of the global food system and people's lives. In most of the world, dairy is in the hands of poor people. Most dairy markets that serve the poor are supplied by small-scale vendors who collect milk from farmers who own just a few dairy animals. But such systems of 'people's milk' are threatened by the ambitions of big dairy companies, such as Nestlé, and a growing number of other wealthy players that want to take over the entire dairy chain in the South, from the farms to the markets."

So begins this fascinating report on people's milk. In a large part of the world, from Colombia to Pakistan to Thailand, milk vendors stream into the cities in the early morning hours, delivering cans of fresh milk from small farms to household doorsteps. The milk is transported on bicycles, on carts, in cars and small vans.

This system is under threat by large corporations who want to flood these markets with cheap powdered milk, particularly from the European

Union, where dairy production is heavily subsidized.

The contributions of people's milk to the lives of the poor around the world are many. It is a key source of nutrition; it is a subsistence food for those with dairy animals and affordable to those without. Fresh people's milk tends to be much cheaper than the processed packaged milk sold by companies. Most importantly, for small farmers, people's milk offers one of the few sources of regular, consistent income. It is

also a source of revenue for the small-scale vendors, as well as for processors who turn the milk into cheese, yogurt and other dairy products on a daily basis.

As can be expected, this "informal sector" is treated with disdain by the elites, who call it "unhygienic" or "of poor quality." Bankers and large-scale processors call the system "inefficient." The truth is that this "unorganized sector" has been successful in getting large quantities of healthful dairy products to market as long as they are not undercut by dumped surplus milk from elsewhere or perse-



Transporting fresh milk in Kenya.

cuted by unfair regulations.

Unfortunately, the movement for people's milk runs head first into the ambitions of corporations that seek to control the global dairy industry. With dairy markets in the northern hemisphere already saturated—even declining—Big Dairy is targeting for its growth the very markets served by people's milk.

As these dairy corporations invade the developing world, they are flanked by a number of other companies and wealthy elites who, together, are trying to reorganize the entire supply

chain, from farms to markets.

Corporate hopes for emerging markets rest in large part upon projections for a growing middle class in the South, one that will consume more dairy and will purchase that dairy from supermarkets. It is impossible for the people's milk system to comply with the private standards and procurement policies set by these companies.

Among both the middle class and the poor, the big push by the dairy industry is for powdered milk products. For example, Nestlé wants to convince poor children in the cities of Pakistan to drink their NIDO powdered milk product instead of fresh whole milk. When the company found that only 4 percent of the twenty-one million children in urban Pakistan were consuming NIDO powdered milk products, mostly in higher income families, the company began "fortifying" their product with iron and advertising heavily to convince poor Pakistani mothers that NIDO was a better choice for their children's health. Sales increased fivefold in 2009, when the campaign was launched.

The most common products are made with cheap imported skimmed milk, which is

reconstituted with cheap vegetable oil. Developing countries account for nearly all imports of skimmed milk powder. New Zealand's large dairy cooperative Fonterra, for example, regularly blends its powdered milk with vegetable oil in its products for poor consumers.

The big companies spend large amounts to create demand for their processed products. For example, in the poor northeast of Brazil, Nestlé and Danone have hired PR firms to help them build strategies to attract poor consumers. Nestlé has a program where salespeople go from door to door selling packs of cookies, dairy products, yogurt and desserts. These vendors "are trained to act as nutrition consultants, helping consumers understand healthful eating."

The large companies have no interest in purchasing from small farmers, but instead have launched a program to build mega-dairies throughout the developing world. And much of that milk is then turned into powder, so it can be stored easily. Skimmed and whole milk powder is the primary form through which milk is traded globally, as fresh milk is too perishable for international trade.

A basic problem is that international prices for dairy are far below the costs of production for nearly all countries. The price is artificial, based on heavily subsidized surplus production in Europe and the U.S., and a low-cost model of export production in New Zealand and Australia, which farmers in many other countries cannot compete with.

In Vietnam, for example, where the dairy market is dominated by a few large processors, and powdered milk products make up 80 percent of the national market, the processors set their local procurement prices

THE PEOPLE'S MILK IN DEVELOPING NATIONS

COUNTRY	PERCENTAGE OF NATIONAL MILK MARKET HANDLED BY THE PEOPLE'S MILK SECTOR
All Developing Countries	80
Argentina	15
Bangladesh	97
Brazil	40
Colombia	83
India	85
Kenya	86
Mexico	41
Pakistan	96
Paraguay	70
Rwanda	96
Sri Lanka	53
Uganda	70
Uruguay	60*
Zambia	78

* Figure is for cheese only.



Industrial Milk: Stacks of powdered milk in bags, stored in a warehouse. The powder is reconstituted with vegetable oil to make dairy beverages.

People's Milk: Woman selling milk and millet mixture in Zinder, Niger.



according to international powdered milk prices. These prices are at or below the costs of production for the average Vietnamese farmer.

For years, developing countries have supported the people's milk with systems of tariffs to protect small farmers. But the potential for these countries to maintain or implement tariffs or other trade protections on dairy are under threat from the multitude of bilateral and regional

trade agreements being implemented and negotiated around the world. In negotiations for such trade deals, the EU, Australia New Zealand, the U.S., Argentina and other exporters insist that importing countries open their markets to their dairy products and comply with other demands that protect exporters' interests.

Government officials tend to have little sympathy for the people's milk. Colombian Agriculture Minister Andres Fernandez admits that the new trade agreement his government has initiated with the EU would adversely affect more than four hundred thousand farming families across

WAPF PRESS RELEASE: NEW STUDIES CONFIRM: RAW MILK A LOW-RISK FOOD

(WASHINGTON, DC, June 11, 2013)-Three quantitative microbial risk assessments (QMRAs) recently published in the *Journal of Food Protection*, have demonstrated that unpasteurized milk is a low-risk food, contrary to previous, inappropriately evidenced claims suggesting a high-risk profile. These scholarly papers, along with dozens of others, were reviewed on May 16, 2013 at the Centre for Disease Control in Vancouver, BC (Canada), during a special scientific Grand Rounds presentation entitled "Unpasteurized milk: myths and evidence."

The reviewer, Nadine Ijaz, MSc, demonstrated how inappropriate evidence has long been mistakenly used to affirm the "myth" that raw milk is a high-risk food, as it was in the 1930s. Today, green leafy vegetables are the most frequent cause of food-borne illness in the United States. British Columbia CDC's Medical Director of Environmental Health Services, Dr. Tom Kosatsky, who is also Scientific Director of Canada's National Collaborating Centre for Environmental Health, welcomed Ms. Ijaz's invited presentation as "up-to-date" and "a very good example of knowledge synthesis and risk communication."

Quantitative microbial risk assessment is considered the gold-standard in food safety evidence, a standard recommended by the United Nations body Codex Alimentarius, and affirmed as an important evidencing tool by both the U.S. Food and Drug Administration and Health Canada. The scientific papers cited at the BC Centre for Disease Control presentation demonstrated a low risk of illness from unpasteurized milk consumption for each of the pathogens *Campylobacter*, Shiga-toxin inducing *E. coli*, *Listeria monocytogenes* and *Staphylococcus aureus*. This low risk profile applied to healthy adults as well as members of immunologically susceptible groups: pregnant women, children and the elderly.

Given that these QMRAs appear to contradict a long-held scientific view that raw milk is a high-risk food, Ms. Ijaz noted (in line with United Nations standards) that it is important to confirm their accuracy using food-borne outbreak data. The accuracy of recent QMRA findings was scientifically demonstrated using a combination of peer-reviewed data and Ijaz's own recent scholarly working paper, which analysed U.S. outbreak data for raw milk using accepted methodologies.

Peer-reviewed outbreak data confirming a negligible risk of illness from *Listeria monocytogenes* in raw milk was particularly notable and demonstrates the inaccuracy of a high-risk designation given to raw milk in an older U.S. government risk assessment for listeria. The forty-year worldwide absence of listeriosis cases from raw milk presented in a 2013 scholarly review, and affirmed in the QMRA results published in 2011, is attributed by European reviewers to the protective action of non-harmful bacteria found in raw milk.

"While it is clear that there remains some appreciable risk of food-borne illness from raw milk consumption, public health bodies should now update their policies and informational materials to reflect the most high-quality evidence, which characterizes this risk as low," said Ijaz. "Raw milk producers should continue to use rigorous management practices to minimize any possible remaining risk."

Ms. Ijaz used extensive high-quality evidence to further deconstruct various scientific myths from both raw milk advocates and detractors. As Ijaz pointed out, increasing evidence of raw farm milk's unique health benefits to young children, as well as the possible detriments of industrial milk production practices, will need to be carefully considered in future risk analyses. She recommended an honest, evidence-informed dialogue on raw milk issues between producers, consumers, advocates, legislators and public health officials.

"The BC CDC should be commended for recognizing this important research on raw milk safety," said Sally Fallon Morell, president of the Weston A. Price Foundation, a non-profit nutrition education foundation that provides information on the health benefits of raw, whole milk from pastured cows. "I look forward to productive discussion with the U.S. CDC and Food and Drug Administration in light of this new scientific evidence."

To view the May 16, 2013 Grand Rounds presentation from the B.C. Centre for Disease Control, visit: <http://www.bccdc.ca/util/about/UBCCDC/GrandRounds/default.htm>.


Colombia. But he says that it should be viewed as a sacrifice, since other industries such as tobacco and coffee stand to gain. "The dairy industry itself is exposed, we cannot lie to the country, but we can't stop signing trade agreements with other countries just because one sector is severely affected," he said.

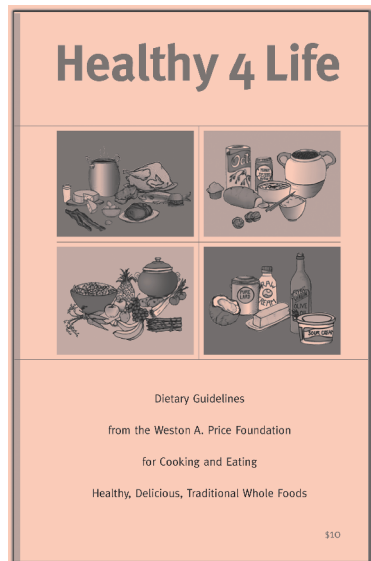
Many wealthy families are getting into the dairy business. For example, the Ancali dairy farm is owned by Carlos Heller, heir to the Falabella family fortune, one of Chile's wealthiest dynasties, with major holdings in retail, real estate and transportation. The farm has sixty-five hundred cows and produces almost eight million liters of milk per month. Large corporations like Nestlé are purchasing dairy farms in many developing countries, consolidating and creating impossible competition for the people's milk. Workers on these farms do not receive the kind of income that goes to producers of people's milk.

Fortunately, the influx of industrial milk has met popular resistance. In Colombia in 2006, a government decree prohibiting the consumption, sale and transport of unpasteurized milk triggered huge protests across the country, forcing the government to postpone adoption of the regulation. Popular opposition did not die down and two years later, with over fifteen thousand people marching in the streets of Bogota, the government was yet again forced to push things back another two years. The people also mobilized to protest trade agreements that would have left the people's milk

sector vulnerable to imports of cheap powdered milk. Finally, in 2011, Decree 1880 was passed, which recognizes *leche popular* as both legal and essential. The battles are not over, but the dairy sector is now at the heart of the popular resistance to these deals.

Dairy is the cornerstone in the construction of food sovereignty—whether in the U.S., Pakistan, Colombia or Thailand. It touches so many people. About 14 percent of the world's population depend directly on dairy production for their livelihoods. The strong alliance between vendors, consumers and farmers of Colombia is an inspiration. Similar alliances now need to be forged everywhere. Milk must remain in the hands of the people.

For the full report, see <http://www.grain.org/article/entries/4259-the-great-milk-robbery-how-corporations-are-stealing-livelihoods-and-a-vital-source-of-nutrition-from-the-poor>. 



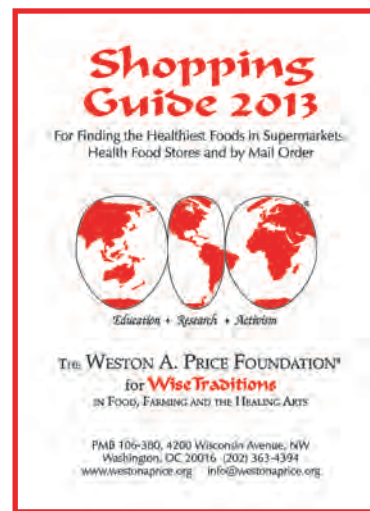
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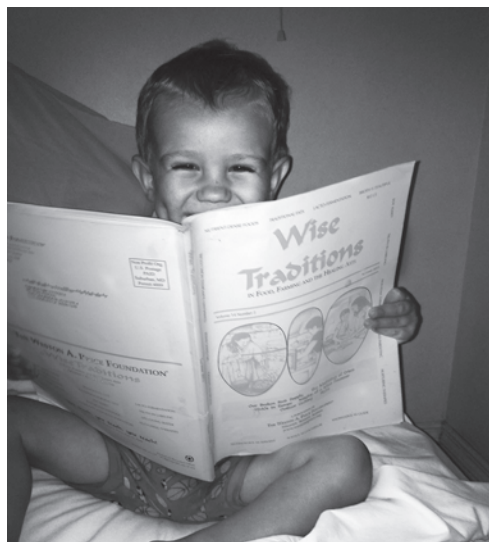
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Anders Ragnar Garrett, son of a loyal Weston A. Price Foundation member, enjoys reading the latest journal.

RAW MILK UPDATES

by Pete Kennedy, Esq.

WISCONSIN – VERNON HERSHBERGER

Loganville dairy farmer Vernon Hershberger was sentenced to \$1,000 in fines and \$513 in court costs for his conviction on violating a hold order the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) officials had placed on food in his on-farm store during a June 2010 raid. A member of Hershberger's buyers club wrote a check at the sentencing hearing to cover the fine (see *Wise Traditions* Summer 2013 issue for background). Hershberger had been acquitted on the other three charges against him which were (1) operating a farm store without a retail food establishment permit, (2) operating a dairy farm without a milk producer license, and (3) operating a dairy plant facility without a license.

Judge Guy Reynolds sentenced Hershberger on June 13 at the Sauk County courthouse; in sentencing the farmer, the judge rejected a motion filed by the Wisconsin Department of Justice (DOJ) to have Hershberger jailed for violating a January 2012 release order prohibiting him from distributing food to members of his private buyers club. Hershberger had stated to a reporter that he had never stopped supplying the buyers club members with food.

Judge Reynolds could have sentenced Hershberger to as much as a \$10,000 fine and a year in jail for the hold order conviction but the acquittals on the licensing charges and letters from Hershberger's supporters convinced the judge to issue a light sentence. What was unusual about the letters of support was that three of them were from members of the jury that convicted the farmer on the hold order violation.

The judge said it was the first time in all his years on the bench that jurors who had convicted a defendant had asked for leniency on the defendant's sentencing. The jury could only consider whether there was a hold order and whether Hershberger violated the hold order—facts the farmer admitted to during his testimony. Judge Reynolds had made a pre-trial ruling prohibiting evidence from being introduced on the validity of the hold order, a ruling which effectively prevented the jurors from acquitting the farmer on the hold order charge.

One juror, Michelle Boltrass-Hopp, wrote in her letter to the judge, "I believe that our three not guilty verdicts support the fact that the Wisconsin Department of Agriculture, Trade and Consumer Protection should never have issued a holding order to Mr. Hershberger." The jury foreman in the case, Paul Freitag, was quoted as saying that the jury "didn't have the truth" and that "if we could have ruled on whether that was a legitimate hold order, we probably would have found him innocent."

Hershberger has appealed the conviction on the hold order to the Wisconsin 4th Circuit Court of Appeals. It could be a year or more before the appellate court issues a decision.

MINNESOTA – ALVIN SCHLANGEN

On August 15, Freeport farmer Alvin Schlangen was convicted by a Stearns County jury on five counts for violations of the Minnesota food and dairy code. The five charges against him were (1) operating without a food handlers permit, (2) distributing misbranded food, (3) not storing eggs at the correct temperature, (4) selling custom processed meat, and (5) violating an embargo order (i.e., removing food that had been taped by the Minnesota Department of Agriculture during a 2010 raid on Schlangen's farm). After the jury announced its verdict, Judge Vicky Landwehn sentenced Schlangen only on the food handlers permit charge and gave him a \$1,000 fine (with \$700 suspended), a suspended 90-day jail term, and one year's probation.

Last September, Schlangen had been acquitted in Hennepin County for three violations of the state food and dairy code, with two of the charges being the same as the ones he faced in Stearns County (i.e., not having a food handlers permit and distributing misbranded food).

Schlagen is a volunteer manager for the Freedom Food Coop (FFC) delivering raw milk and other nutrient-dense foods to members of the private food buyers club. Unlike the Hennepin County case, the Stearns County trial concerned events before Schlagen started FFC. The Stearns County verdict did nothing to contradict the Hennepin County jury's finding that the farmer's deliveries to the FFC buyers club members did not violate the law.

Stearns County Prosecutor William MacPhail built a successful case against the farmer by falsely insinuating that the raw milk Schlangen provided a family was responsible for making their child sick with campylobacter poisoning even though MacPhail knew there wasn't a shred of evidence that the raw milk was the cause of the illness. The prosecutor had a Minnesota Department of Health veterinarian testify at length about foodborne illness while never connecting any illness to the food Schlangen delivered. MacPhail was looking to put doubt in the jurors' minds about whether an unregulated farmer should be delivering food even if the farmer had a perfect track record for safety.

The one conviction the Minnesota Department of Agriculture (MDA) wanted the most was on the food handlers charge; it was the grounds for the department exercising control over Schlangen's private distribution of food. Forcing the farmer to obtain the food handlers permit would mean that Schlangen would not be able to deliver raw milk to the club members—a point both he and FFC witness, Kathy Johnson, made in their testimony at the trial. Even though MacPhail withdrew a charge of selling raw milk before the trial began, the case was—as Schlangen's attorney, Nathan Hansen, said—ultimately about raw milk. Schlangen has not decided whether he will be appealing his conviction.

In addition to the Stearns County conviction, an administrative case involving the farmer concluded in July with the judge recommending that MDA order Schlangen to stop delivering food unless he obtained a food handlers permit; MDA Commissioner Dave Frederickson adopted the recommendation. Violation of the order could be grounds for a future criminal or civil action against Schlangen.

MINNESOTA – MIKE HARTMANN

The state of Minnesota continues its efforts to shut down Gibbon farmer Michael Hartmann's business. In the early hours of the morning on August 8, a state trooper pulled over Hartmann in his truck on a highway in Anoka County as the farmer was in the process of making food deliveries to the patrons of his farm. The pretext for the stop was that the farmer was driving with part of his truck over the white fog line on the right side of the highway; the trooper created the pretext by tailgating Hartmann's truck. When the trooper pulled up behind the truck, Hartmann—thinking the trooper wanted to pass him—moved over to the right to give the trooper a better line of sight to pass.

Once the state trooper confirmed that the truck was Hartmann's, he had the truck towed to a gas station across town, leaving the farmer stranded on the side of the highway. Agents from the Minnesota Department of Agriculture (MDA) searched the truck at the station, confiscating all food they found. Hartmann eventually recovered his empty truck that afternoon.

Shortly after the stop and seizure, a Sibley County prosecutor announced that the state was going to file a motion to have Hartmann jailed, claiming the farmer had violated the terms of his parole. In October 2012, Hartmann pleaded guilty to two counts of violating the state food and dairy code, receiving a \$585 fine and six months probation. There is currently a contempt of court action for violating that probation and the state is planning to bring two separate sets of criminal charges against the farmer as well for alleged violations of the state food and dairy code within the past year.

Hartmann has maintained for years that he is not violating the law because the Minnesota Constitution gives him the right to sell and peddle products of the farm without a permit or inspection.

MDA is continuing to go after Alvin Schlangen and Hartmann because it knows it can eliminate a substantial amount of the raw milk shipped into the Minneapolis-St. Paul area if it shuts down the two farmers. MDA refuses to make any distinction between the public and private distribution of food; at this time, Minnesota remains by far the most draconian state in terms of raw milk enforcement.

PROPOSED RAW MILK REGULATIONS – ILLINOIS & SOUTH DAKOTA

Proposed regulations threatening access to raw milk in Illinois and South Dakota continue in the rule-making process (see *Wise Traditions* Summer 2013 issue for background).

In Illinois, raw milk advocates were making progress in developing more favorable regulations than those originally proposed by a dairy workgroup last winter. The balance of power in the workgroup had shifted to the point that raw milk producers and consumers now made up the majority of those actively working on the new regulations. The focus

of the group moved from limiting on-farm sales of raw milk to establishing a two-tier system in which unlicensed on-farm sales of raw milk would continue while producers wanting to sell at farmers markets—and possibly at retail stores—would be licensed and inspected by the state. It seems unlikely that the Illinois Department of Public Health would be issuing the proposed regulations before the end of the year.

In South Dakota, regulations proposed in May went to the Legislative Rules Review Committee (LRRC) on August 20 for final approval. Some modifications had been made to the rules since they were first proposed—notably, language clarifying that the South Dakota Department of Agriculture (SDDA) did not regulate herdshares; but the rules still posed a threat to the future of the licensed raw milk dairies in the state.

After hearing testimony from a number of raw milk advocates, the LRRC voted against approving the proposed regulations, sending them back to SDDA on the grounds that the department didn't provide sufficient information to comply with the requirement that SDDA provide a statement detailing the impact the proposed regulations would have on small business. The LRRC also rejected the rules because its members believed SDDA failed to thoroughly explain what was being changed in the rules.

It is now up to SDDA to determine what its next step will be. No one trusts the department to make the regulations it resubmits to the LRRC any less burdensome for producers. SDDA provided further evidence of its bias against raw milk with its distribution of a flyer claiming that there were 24 illnesses in South Dakota in 2012 associated with raw milk consumption—a blatant lie, given that there hasn't been a single reported foodborne illness outbreak in South Dakota attributed to raw milk consumption since 1999, if not further back. A number of raw milk supporters believe that SDDA dairy administrator Darwin Kurtenbach wants to eliminate all raw milk dairies in the state.

For the latest developments on raw milk issues, go to www.thecompletepatient.com.

Those who have not joined the Farm-to-Consumer Legal Defense Fund are encouraged to do so. Membership applications are available online at www.farmtoconsumer.org or by calling (703) 208-FARM (3276); the mailing address is 8116 Arlington Blvd, Suite 263, Falls Church, VA 22042.

CHAPTER LEADER AT WEBB CITY, MISSOURI FARMERS MARKET

Having recently started a chapter in Joplin, Missouri, Kimlyn Powers took a booth at her local farmers market to get the WAPF message out to the people in the community.

Kimlyn reports that raw milk is available at the farmers market. Pictured here is Kimlyn with raw milk farmer Dr. Mark A Robinson and his wife Leesa. (He's a chiropractor by day and a raw milk farmer by night.)



Healthy Baby Gallery

Makena Grace Holstein takes her first steps. During her pregnancy, Makena Grace's mother Celeste ate organic produce and meats, pastured eggs, raw goat and cow milk, raw yogurt, kombucha, and mostly gluten-free grains with ox tail, bone broths and plenty of marrow. Supplementation included some fermented cod liver oil, high vitamin butter oil and tuna oil from Standard Process. Makena Grace loves her cod liver oil and has been taking it since six months of age.



Beautiful Anna Hubbard was born normally (VBAC) on June 6, 2004. She has had no immunizations. When her mother had trouble lactating, the nurses immediately wanted to start Anna on formula. But as soon as her parents got home, they put her on our raw milk baby formula. At four months, she got raw, pasture-fed egg yolk in her bottle. She's never been to the hospital and has rarely been sick.

Local Chapters

All Areas: Nourishing Our Children, Sandrine Love (415) 820-1474, info@nourishingourchildren.org, <http://www.nourishingourchildren.org>

- AL Auburn: Susan Ledbetter (334) 821-8063, gnomons@bellsouth.net
Birmingham: William & Elizabeth Doonan & Charlie Higgenbotham (205) 617-0306, nourishingtraditionsbhm@gmail.com
Estillfork: John Langlois (256) 776-1499, john.langlois@foggybottomfarms.com, http://health.groups.yahoo.com/group/AL_WAPF/
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Chico/Butte Valley: Carol Albrecht & Kim Port (530) 570-1684, ccakfa@aol.com, <http://www.meetup.com/Chico-ButteValleyWAPFChapter/>
CREMA- California Raw Milk Association: Christine Chessen crema@comcast.net, www.californiarawmilk.org
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Dublin/Pleasanton/Livermore: Judith Phillips (925) 570-0439, judy@magneticclay.com, <http://wapfeastbay.ning.com>
Fresno/Madera County: Hillori Hansen (559) 243-6476, blissful_chef@yahoo.com & Megan Dickey (559) 355-1872, hiddenpathways@gmail.com
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LOCAL CHAPTER BASIC REQUIREMENTS

1. Create a Food Resource List of organic or biodynamic produce, milk products from pasture-fed livestock (preferably raw), pasture-fed eggs and livestock and properly produced whole foods in your area.
2. Provide a contact phone number to be listed on the website and in our quarterly magazine.
3. Provide Weston A. Price Foundation materials to inquirers, and make available as appropriate in local health food stores, libraries and service organizations and to health care practitioners.
4. Provide a yearly report of your local chapter activities.
5. Be a member in good standing of the Weston A. Price Foundation.
6. Sign a contract on the use of the Weston A. Price Foundation name and trademark.

OPTIONAL ACTIVITIES

1. Maintain a list of local health care practitioners who support the Foundation's teachings regarding diet and health.
2. Represent the Foundation at local conferences and fairs.
3. Organize social gatherings, such as support groups and pot luck dinners, to present the Weston A. Price Foundation philosophy and materials.
4. Present seminars, workshops and/or cooking classes featuring speakers from the Weston A. Price Foundation, or local speakers who support the Foundation's goals and philosophy.
5. Represent the Weston A. Price Foundation philosophy and goals to local media, governments and lawmakers.
6. Lobby for the elimination of laws that restrict access to locally produced and processed food (such as pasteurization laws) or that limit health freedoms in any way.
7. Publish a simple newsletter containing information and announcements for local chapter members.
8. Work with schools to provide curriculum materials and training for classes in physical education, human development and home economics.
9. Help the Foundation find outlets for the sale of its quarterly magazine.

Local Chapters

Los Angeles-West & Santa Monica: Victoria Bloch (310) 447-4527, victoria@wisetraditions-la.com, <http://www.meetup/Los-Angeles-Whole-Food-Nutrition-Meetup-Group/>
Mammoth Lakes: Season Johnson (530) 859-3299, seasonmjohnson@gmail.com
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WAPF BOOTH AT SISKIYOU COUNTY FAIR

The very small Siskiyou County, California chapter salutes eighteen members who filled one hundred six people hours over five days at the first ever Weston A. Price Foundation booth at the local county fair! They reached many people who are obviously having health struggles and heard many fond stories from the older folks about drinking fresh milk from the family cow while growing up. One woman reported that raw milk—consumed and put into the ear—cured her daughter of chronic ear infections.

Pictured here are Craig and Jen Thompson of Rockside Ranch, who took time off from their busy summertime farming to volunteer. They run a CSA and pasture raise broilers, ducks, pigs and eggs near the small town of Etna in Scott Valley. They also act as an outlet for local growers and producers, offering produce, grains, dried fruits and honey, along with their products from Rockside Ranch.



Local Chapters

- CO Boulder: Betsy Sheffield (720) 334-8774, betsy@fitrwellness.com & Claire DeLeo (303) 619-8373, clairedeleo@yahoo.com, <http://chapters.westonaprice.org/boulderco/>
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The Weston A. Price Foundation currently has 608 local chapters;
of that number 490 serve every state in the United States (except Alaska) and Puerto Rico
and 118 serve 25 other countries!

Local Chapters

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South Coast: Edward Welles (207) 604-6679, eatwellmaine@gmail.com

CHAPTER RESOURCES

Resources for chapter leaders can be accessed at <http://www.westonaprice.org/local-chapters/chapter-resources>, including our trifold brochures in Word format, chapter handbook, and PowerPoint presentations.

LOCAL CHAPTER LIST SERVE

Thank you to Suze Fisher for setting up a local chapter chat group. New chapter leaders can sign up at <http://groups.yahoo.com/group/wapfchapterleaders/>

Local Chapters

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TEACHING CHILDREN ABOUT HEALTHY FOOD

Karl and Nancy Falster, chapter leaders for Winnsboro, Texas, hosted a booth at a local "get out and play" day. They brought their earth oven and had the children make their own flatbread, using a soaked flour recipe. The bread was then baked in the earth oven. They topped their flatbread with yogurt cheese, seasoned with herbs or honey.

It was the second most popular event (right after the bike rodeo). This shows that children are very interested in food and will eat healthy versions of food items if given the chance.

The Falsters passed out loads of WAPF brochures and spoke to moms who would not normally have stopped at a "nutrition" table.

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DIY FESTIVAL IN MANITOBA, CANADA



Nourished Roots (www.nourishedroots.ca) hosted the first ever DIY Homesteader Festival June 1st in Manitoba, Canada. Festival-goers could choose from more than twenty-seven workshops, including classes on how to make seasonal drinks from wild-harvested nettle and chaga mushroom.

LEFT: Cornelius and Dora Friesen of Integrity Foods feed hungry festival-goers. The Friesens have Manitoba's only ancient grains bakery, which makes sourdough bread in a wood-fired oven.

RIGHT: Festival-goers explore the many exhibits at the Homesteader Festival.



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Nadig Family Farm, DeKalb/Cortland, IL. We sell Raw Milk from pastured Guernsey Cows, grass-fed beef, grass-fed lamb, pastured chicken, pastured turkey, and pastured chicken eggs. Also, organically fed pork and rabbit. We have wool, angora, and yarn from our farm. Visit our web site at www.nadig-familyfarm.com or call John or Charlotte at (815) 748-3782.

IN

Crystal Waters Farm, LLC. Raw milk, colostrum and beef from grass-fed Jersey cows. Also real honey, bees wax candles and beekeeping supplies. Affordable quality. We're located along highway 36, 45 miles west of Indianapolis. Call anytime! Stevie King (765) 739-8334 (leave message).

Raw milk cheeses, grass-fed beef, veal. Also, a variety of fresh raw dairy products available as pet food. 100% pasture fed cows. NO hormones, pesticides, antibiotics used. **Will ship.** Available from the Yegerlehner's The Swiss Connection. (812) 939-2813, www.swissconnectioncheese.com, Clay City.

MA

Many Hands Organic Farm in Barre, MA. Produces certified organic lard from pasture raised pigs fed Nature's Best Organic Feeds, whey and pasture. \$20/quart in recycled yogurt containers. **We ship** in the US. Order at <http://mhof.net/meat/index.php>. (978) 355-2853; farm@mhof.net.

Misty Brook Organic Farm raises soy-free pastured pork, broiler chickens, and eggs. Beef, veal, and dairy are 100% grass-fed. Milk and cheese are from no-grain Jersey cows. Vegetables are grown with draft horses. Grains are stone ground. www.mistybrook.com (413) 477-8234.

MD

100% soy-free chicken, eggs, pork and beef. Chicken livers, chicken feet and heads. Bacon and sausage. Raw milk Blue and Cheddar cheese by cheesemaker Sally Fallon Morell. **Will ship whole cheese wheels.** Southern Maryland, within 1 hour of downtown Annapolis and Washington, DC. Saturday farm tours. Store open Thurs-Sat 10-6 or by appointment. P. A. Bowen Farmstead, 15701 Doctor Bowen Road, Brandywine, MD. (301) 579-2727, pabowenfarmstead.com.

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MN

Farm On Wheels offers animals raised Green Grass-fed & Certified Organic. Nutrient dense beef, lamb, chicken, eggs, Turkey, goose, duck, pork, lard, butter. No corn or soy. Farmers Market year around in St. Paul, Prior Lake, Northfield, Just Food. Linda (507) 789-6679, www.cannon.net/~farmonw

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Abraham Lincoln

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NY

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Raw milk from Dutch Belted cows organic certified farm, grass-fed. Call us for other products. Ana Lups, Pleroma Farm, Hudson, NY (518) 828-1966.

OH

Three Moon Farm, Williamsport OH. We raise grass-fed beef, pasture raised chicken, turkey & eggs. We also offer raw honey from our hives. For more information please check us out at www.threemoonfarm.com or call Kelly at (740) 253-9029.

PA

Bareville Creamery 100% grass-fed. We offer raw traditionally cultured butter from our grass-fed cows. We **will ship** to you or visit our farm to pick up. Daniel & Katie Zook, Leola, PA (717) 656-4422.

Carlton Farms is certified organic and biodynamic. We offer pastured chicken, eggs and lamb, and wheat, rye, gourmet herb and flower salts. **Shipping available**. Contact (570) 396-0886, info@CarltonFarms.net. Visit us on Facebook or at CarltonFarms.net.

Freedom Acres Farm located in Honey brook, PA. Raw milk and dairy products from 100% grassfed Jersey cows, pastured, GMO free chicken, turkey, eggs, and pork. 100% grass-fed beef Samuel and Esther Fisher, (610)273-2076, sam.freedomacres@gmail.com

Fresh grass-fed raw milk, cream, butter, yogurt & cheese - veal, soy-free poultry, free range eggs, grass-fed beef and lamb. Frozen meats also available. We **will ship**. You are welcome to stop in or give us a call. Mark & MaryAnn Nolt (717) 776-3417.

Grass-fed organic raw milk and dairy food: 100% grass-finished beef and lamb, pastured pork, chicken and turkey, wild Alaskan salmon, fermented vegetables, raw honey, maple syrup and more. Long Island drop. Paradise Pastures, Paradise, PA (717) 687-8576.

Naturally raised grass-fed beef available. Whole beef, half or quarter beef, available in Oct. or Nov. Also ground beef & limited cuts available anytime. No chemicals or hormones are used on our beef. (717) 789-4602 ext.2 leave message please.

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Raw milk cheeses from organically managed, 100% grass-fed Jersey cows. Retail & wholesale. Prices start at 5.00/pound, **mail order** cheese. Raw milk & pastured eggs available. Eastern PA, 15 minutes N of I78, Hilltop Meadows Farm, 153 Martins Rd. Pine Grove, PA 17963 (570) 345-3305.

VA

Cow/Herd shares available, with Member in Local Kine (M.I.L.K.) Project in Fauquier County at Western View Farm, 2028 Laws Ford Rd., Catlett, VA 20119. For information call Martha Bender (540) 788-9663.

Salatin family's Polyface Farm has salad bar beef, pig/aerator pork, pastured chickens, turkeys and eggs, and forage-based rabbits. Near Staunton. **Some delivery available**. Call (540) 885-3590 or (540) 887-8194.

Virginia Buyers Club. Certified organic grass-fed dairy products from Jersey cows. Eggs from pastured chickens. Grass-fed beef, pork & chicken. Fermented foods, Green Pasture Products, soaked & dried nuts & raw honey. **Will ship**. (717) 768-3437. Pleasant Pastures.

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CRAFTS

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DVDS

DVD "Nourishing Our Children" recently launched a DVD that may be used for one's self-education or to present to an audience. You will learn how to nourish rather than merely feed your family. nourishingourchildren.org/DVD-Wise.html **Free shipping!**

Share your passion for food with friends and family! The Diet for Human Beings affirms our human requirement for fats, with less emphasis on starchy carbs. "An Hour To Watch – 30 Days To Try – Your Life Will Never Be The Same" www.ondietandhealth.com.

EMPLOYMENT OPPORTUNITIES

Middle TN small farm is seeking an individual(s) to assist with spring/summer farming. Duties include helping with livestock operations, electric fence maintenance, gardening and other farm chores. Offering bedroom with bath and kitchen privileges. References required. Please call (931) 762-2847.

Rewco, Inc. is seeking someone with a passion for health and wellness also possessing a strong work ethic. This is a full time position providing educational and support services to 7 supermarkets located in Maryland.. Responsibilities include a leadership role at new store setups and providing product training. Requirements include knowledge of natural and organic food, presentation skills, reliable vehicle, self-motivation and ability to travel overnight occasionally. Annual salary of \$30,000, full benefits package and reimbursement for business mileage. Interested qualified candidates can send resume and cover letter to Carol.Poliner@rewco.com.

Seeking Farmer & Property Manager in La Plata, MD: Newly built two-story tenant house with 2 bedrooms, 1.5 baths on site and available for occupation Fall 2013. Approximately 50+ acres of farmland available for agricultural use (holistic farm projects welcomed). Property management would include basic maintenance of farm owner's non-agricultural land (approximately 12 acres). Call (504) 451-5625 for details.

Semi-retired couple (she writes and teaches about women's health; would love to teach reading and writing to teens who farm part of the day. She is also an excellent cook. He prunes trees, repairs drip irrigation.) seeks

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If people let government decide what foods they eat and what medicines they take, their bodies will soon be in as sorry a state as are the souls of those who live under tyranny.

Thomas Jefferson

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INTENTIONAL COMMUNITY

Attracted to becoming part of an organic agri-diversified farm? We raise large animals, birds and vegetables, plus have a bakery and our own flour mills. Our intentional community projects are in development, and are diversified. Interested? Contact John through www.fermemorgan.com.

Eco Farm: Small, farm-based community located near Tampa FL with a mission of sustainable living. WAPF friendly looking for others for direction and help, especially with our small pasture based dairy operation. This year we have reached 400 PPM CO2 in our atmosphere, which makes our chance to prevent climate break-down close to zero (New York Times 5/ 11). Small, local, farm-based communities may be our only hope; it's ours at www.eco-farmfl.org, (813) 754-7374.

INTERN/APPRENTICESHIPS

Vermont Farm seeks helpers for 2013. We integrate American Milking Devon cattle, pigs and chickens with growing and fermenting six tons of vegetables. Our grain-free cows support raw milk sales plus butter and cheese making. We focus on selling nutrient-dense foods while eating well ourselves! Learning opportunities include milking, biodynamics, natural livestock care. Positions available April to November, short and long-term. Cabins, food, laundry, Internet access and lots of education. Call Doug Flack, (802) 933-7752, Flack Family Farm, www.flackfamilyfarm.com.

INVESTORS NEEDED

Launching the creation of WAPF-friendly food outlet for travelers (air ports, rest stops, etc.) Seeking individuals with food or restaurant industry experience to assist in preparation of business plan. Looking for support in all domains, especially finance and operations. Retail experience helpful. All contributions of expertise are welcome. Please contact Katharine Spehar at kjspehar@gmail.com.

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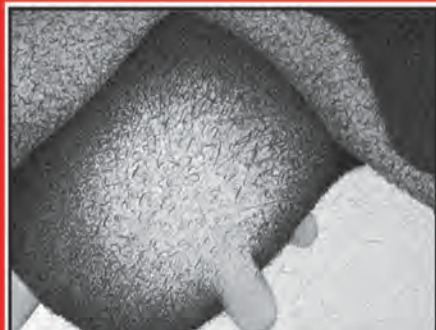
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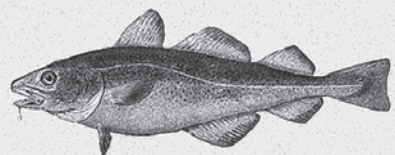
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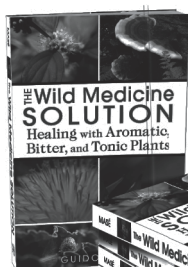
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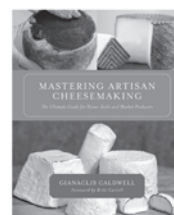
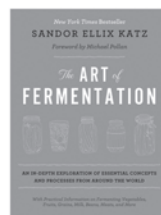
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Fish That We Eat *Iqaluich Niginaqtuat*

This manual by Anore Paniyauraq Jones is the second in a series of three detailing the traditional foods of the Inupiat. The first book in this series about Inupiat foods was *Nauriat Niginaqtuat, Plants That We Eat*, an ethno-botanical manual, long out of print but due to be re-printed in the fall of 2009 by University of Alaska Press. It is 150 pages with black and white photos and sketches.

The second manual, *Iqaluich Niginaqtuat, Fish That We Eat*, provides information regarding the traditional use of fish, their processing, recipes and eating enjoyment. It was compiled from the local traditional fish knowledge of northwest Alaska and was partially funded and placed on the web by the U.S. Fish and Wildlife Service.

The third manual in this series will similarly detail the traditional Inupiat processing techniques and recipes for sea mammals.

Presently there is no funding to support this work. Any suggestions would be welcome. The web link to *Iqaluich Niginaqtuat, Fish That We Eat*, is below. The report is located under the U.S.F.W. Northwest AK section. From here you can read it and/or download and print it. It should be printed double-sided due to the length (341 pages), including 100+color photos, sketches.

<http://alaska.fws.gov/asm/fisreportdetail.cfm?fisrep=21>

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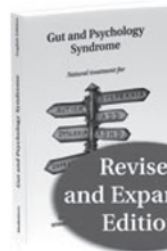
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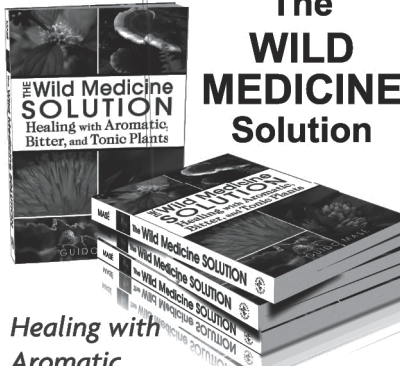
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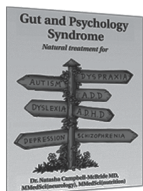
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The Weston A. Price Foundation is a nonprofit, tax-exempt charity founded in 1999 to disseminate the research of nutrition pioneer Weston A. Price, DDS, whose studies of isolated nonindustrialized peoples established the parameters of human health and determined the optimum characteristics of human diets. Dr. Price's research demonstrated that men and women achieve perfect physical form and perfect health, generation after generation, only when they consume nutrient-dense whole foods and the vital fat-soluble activators found exclusively in animal fats.

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The Weston A. Price Foundation is supported by membership dues and private donations and receives no funding from the meat or dairy industries.

Upcoming Events

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- Oct 11-13** **Lake Eden, Black Mountain, NC:** Southeast Women's Herbal Conference featuring Sally Fallon Morell, Susun Weed, Susan DeLaney, Corinna Wood, and others. **Contact:** www.sewisewoman.com.
- Oct 24** **New Bedford, MA:** NOFA Massachusetts all-day seminar by Chris Masterjohn on Human Health and Soil Health: Fat-Soluble Vitamin Interactions and Foods from Pastured Animals. **Contact:** www.nofa-mass.org or (413) 658-5374.
- Dec 12-14** **Springfield, IL:** Acres USA annual conference. **Contact:** www.acresusa.com/events/events.htm

2014

- Feb 1** **Eemnes, Netherlands:** Weston Price Day featuring Sally Fallon Morell, David Wetzel and Dutch farmers, at the van der Valk Hotel, De Witte Bergen. **Contact:** succesboeken.nl, (31) 30 2285600.
- Feb 5-8** **State College, PA:** PASA Farming for the Future Conference. **Contact:** <http://pasafarming.org/events/conference>
- Feb 7-8** **Sandown Park, Esher, London, UK:** Wise Traditions London featuring Sally Fallon Morell, Chris Masterjohn, Dr. Natasha Campbell-McBride, MD, Prof. Ton Baars, David Wetzel, Dr. Malcolm Kendrick, Dr. Graeme Munro-Hall, Ben Pratt, Jane Levi, Jane Mason and more to be confirmed, including practical workshops, exhibition and food. **Contact:** westonaprice.org/london.

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