Sustainable Nutrition:

An Idea Whose Time Has Come

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The word sustainability is derived from the Latin sustinere (tenere, to hold; sus, up). Dictionaries provide more than ten meanings for sustain, the main ones being to "maintain," "support," or "endure." Since the 1980s, however, sustainability has been used more in the sense of human sustainability on planet Earth, resulting in the most widely quoted definition of sustainability and sustainable development, that of the Brundtland Commission of the United Nations: "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Living Sustainability

What actions can we take or abstain from that will foster greater sustainability? In determining how to answer these questions, let's consider the three key issues that frame this important concept: ecology, economy and health. These three elements are closely intertwined. If we start by looking at the environment and the economy, we quickly see how our individual health relies on being conscious of the larger picture. As a key example, the most sustainable action we as consumers can take is to eat as locally as possible, thus reducing our carbon footprint immensely. In fact, when we source the bulk of our food locally, enormous amounts of resources are saved. In A Nation Of Farmers, Sharon Astyk and Aaron Newton paint a clear picture of how industrial food impacts the planet:

> Whether flown or trucked, all industrial food has a heavy carbon impact. Food is fertilized with fossil fuels… which creates the potent greenhouse gas nitrous oxide. Pesticides are manufactured with and from petrochemicals. Soil amendments are trucked around the world, then added to the soils with carbon-spewing tractors. The food is often harvested mechanically, packed into warehouses cooled with fossil fuels, and then trucked, shipped, refrigerated, processed in

every way, each with its carbon impact, until the day you drive to the supermarket to buy it. (27)

By contrast, when we shop at local farmers markets and plant vegetable and herb gardens, our reliance on industrial agriculture is minimized and the local economy gets a boost. Astyk and Newton explain that when consumers make local choices over industrial ones, the need for pesticides and fertilizers are reduced or eliminated. So is the need for warehousing, storing, and refrigeration — which is what allows the food to spend up to ten days in transit. "When you walk out your door or down the street to a neighbor to pick up your eggs and vegetables, you spare the earth tremendous consequences" (Astyk & Newton, 27). But if this ideal is not realistic, the next best option is to find your local farmers market and buy the bulk of your food from the local farmers that bring their produce and products to you. It is also important to keep in mind just how easy it is to create a small backyard garden. By simply growing some lettuces, greens, tomatoes and herbs, you can supplement your locally bought food nicely. Growing our own foods, at whatever scale we can, is a significant way to preserve the planet and protect it from climate change. It also builds a wonderful sense of self-efficacy and invites collaboration from family members, neighbors, and friends, which supports sustainable relationships, a key social value for health and happiness. We feel good when we are living well and are part of a community of well being.

A Plant Based Diet Is Sustainable

Eating less meat and relying on a largely plant-based diet is another way to foster enhanced sustainability. Industrial livestock farming is one of the largest contributors to global warming as well as to soil and water pollution. The reasons for this are many. First, animal feces are the largest source of methane (one of the most potent warming gases) in the US, according to A Nation of Farmers. A recent Time Magazine article (August, 2009) states that a 1,000-head feedlot produces about 280 tons of manure a week. Second, it takes enormous quantities of grain to produce meat. It takes about 15

pounds of grain to produce two pounds of industrial beef (Astyk & Newton, 28). Add to that the millions of tons of fertilizer and petroleum that is required in the production of grain and the environmental damage becomes clear. The chemicals used by American farmers to produce the amount of corn required for use in the industrial agriculture system is astounding — 10 million tons are used for corn alone and more than 23 million tons for all crops, according to the Time Magazine article. The chemical fertilizer run-off from the farms of the Midwest creates what are known as "dead-zones" in the Gulf of Mexico — an approximately 6,000 square mile area that has no oxygen and virtually no sea life. According to the Time Magazine article, there are 400 similar dead zones around the world.

Health and Nutrition Impact of Sustainable Nutrition

So, how does this affect individual health? The ways are innumerable. For one, buying food locally means that the food we eat is fresher with higher levels of nutrients and antioxidants. According to Michael Pollan's book, In Defense of Food, comparisons of crops grown organically and conventionally have found higher levels of antioxidants, flavonoids, vitamins, and other nutrients in organic crops. Pollan adds, "Of course after a few days riding cross-country in a truck the nutritional quality of any kind of produce will deteriorate, so ideally you want to look for food that is both organic and local" (Pollan, 170). A 2008 study by The Organic Center found that organic foods within matched pairs were nutritionally superior in 61 percent of the cases. The organic samples contained higher concentrations of the very important polyphenols and antioxidants. The total antioxidant capacity of organic fruits and vegetables was about 80 percent greater. Increasing these nutrients is vitally important since the average daily consumption of polyphenols and antioxidants is less than one half of recommended levels (organic-center.org, 2008).

Relying less on animal products for protein is also beneficial to our health and the reasons are two-fold. For one, eating less meat means you add more plant-based foods into your diet. This means you will increase your consumption of one of the most crucial antioxidants — vitamin C, among countless other important antioxidants. These all-important substances work to stabilize and absorb free radicals, which can damage our cells and lead to chronic diseases, including cancer (Pollan, 163). Antioxidants also perform the invaluable task of stimulating the liver to help disarm and eliminate toxins that come into our bodies (Pollan, 163). Since we cannot make our own vitamin C, the human body requires that we consume it on a regular basis — and this means eating a lot of plants! Eating less meat also means that you will most likely be consuming less

calories since most plant-based foods are less energy-dense than animal foods (Pollan, 165).

Consider using meat as a condiment in your sustainable nutrition plant-based diet. In buying and eating animal products, it is important to our ecology, economy and health that meat or dairy products, come from free range, pasture-based farms. This means that the animals get to roam around outdoors and are free to eat grass, leaves, and, in the case of chickens and pigs, whatever else happens to cross their paths. This is what their natural diet was meant to consist of. Unfortunately, when we buy meat from the supermarket or butcher, or have it in conventional restaurants (even the high end ones) that are not touting their free range sourcing, it most likely came from a large feedlot operation where animals were kept in inhumane conditions and were fed corn and soybeans, which is not the intended food for healthy livestock. While conventional meats provide a substantial amount of protein, the fat quantity and quality is altered in a way that contributes to increased inflammation, cardiovascular disease and obesity. Conventionally raised animal food also has been shown to contain harmful pesticides, herbicides, and environmental toxins that store in the animal fat and are another contributor to ill health (Bauman, 2008, Fatal Attraction: The Connection Between Obesity and Toxicity).

To demonstrate healthful sustainability, eggs from chickens that are pasture-based contain significantly higher levels of vitamins and nutrients than those that are conventionally raised. In a 2008 Mother Earth News study, pastured eggs contained one-third less cholesterol than factory-produced eggs, one-fourth less saturated fat, two-thirds more vitamin A, three to six times more vitamin D, two times more omega-3 fatty acids, three times more vitamin E, and seven times more beta carotene (Motherearthnews.com, 2008).

Meat and dairy products that come from animals raised on pasture also contain the invaluable omega-3 fatty acids that are found in the grass and plants the animals on pasture eat. In fact, grass-fed meat contains two to three times the amount of omega-3 fatty acids than conventionally raised beef. Grass-fed beef also contains four times the amount of vitamin E (eatwild.com). Grass-fed dairy products, like milk, butter, and cheese, contain three to five times the amount of Conjugated Linoleic Acid (CLA), which has strong anticancer properties and also encourages muscle gain and weight loss, according to nutrition expert Sally Fallon in her book Nourishing Traditions (Fallon, 17). They also contain higher amounts of vitamins E, A, and beta-carotene (eatwild.com).

Economic Impact of Sustainable Nutrition

Grass-fed beef and other organically grown foods may be more expensive than conventionally, industrially grown foods, but that is just in terms of the price tags we see. In actuality, the real cost of conventional foods is much greater, thanks in part to government subsidies for corn, wheat, beef, dairy and other products grown and raised in the industrial model. The true cost of these foods, however, is reflected in the obesity epidemic, the diabetes crisis, heart disease prevalence, and the environmental disaster we now find ourselves in. Cleary, we are paying for the convenience of these industrial foods in more ways than one. According to T. Colin Campbell in the China Study, the US spends far more per capita on health care than any other society in the world. Despite this, two thirds of Americans are overweight and over 15 million Americans have diabetes. In addition, half of Americans have a health problem that requires taking a prescription drug every week (Campbell, 3). In Barbara Kingsolver's , Animal, Vegetable, Miracle, she writes, "The incidence of obesity-associated diabetes has more than doubled since 1990, with children the fastest growing class of victims. One out of every three dollars we spend on health care, by some recent estimates, is paying for the damage done by bad eating habits" (Kingsolver 116). Time Magazine did a cost analysis and found that to buy organically, sustainably-raised foods would cost the average American an additional $900 a year in food expenses. When we take into consideration that the average cost of medical expenses one incurs after a diagnosis of diabetes is $13,000 a year, this seems like an easy price comparison (Pollan, 136). In Kingsolver's, Animal, Vegetable, Miracle, her husband, biologist Steven Hopp, makes a related point when he writes:

> Most consumers don't realize how much we're already paying for conventional foods, before we even get to the supermarket. Our tax dollars subsidize the petroleum used in growing, processing, and shipping these products. We also pay direct subsidies to the large-scale, chemical-dependent brand of farming. And we're being forced to pay more each year for the environmental and health costs of that method of food production.

Hopp goes on to explain that if we add up the portion of fuel that is paid for with our taxes, Farm Bill subsidies for corn and wheat, treatment of food-related illnesses, agricultural chemical clean-up costs, collateral costs of pesticide use, and cost of nutrients lost to erosion — that equals at least an $80 billion a year subsidy, or $725 per American household each year. Recall that the TIME Magazine article found that an additional $900 a year would allow American households to purchase organic, sustainably-raised foods for their families, while supporting local and sustainable food

economies and feeding themselves and their families healthier, more nutritious food. If we prioritize the health of ourselves and our families, and we see how this is tied into the health of the environment, the cost comparisons become obvious. Industrial milk or meat may be cheaper in the short-term, but, in the end, buying our families the most healthy foods possible will save money and much unnecessary suffering. Michael Pollan puts it this way: Americans spend only about a tenth of their disposable income on food, down from a fifth in the 1950s. Americans spend less on food than any other industrialized nation. He argues that this suggests that there are many of us who could afford to spend more money on food if we chose to. As an example, he points out that many Americans spend an extra $50 or $100 a month on cell phones or television (Pollan 2006, 243). So there is a choice involved: You can pay for the healthy food now, or you can pay for health care and management of chronic disease later in life. Similarly, we can choose to make the responsible choices for our planet or be shortsighted and force future generations to clean up our mess. Organic farmer Joel Salatin sums it up nicely by saying, “Clean food is actually the cheapest food you can buy… I tell [people] the choice is simple: You can buy honestly-priced food or you can buy irresponsibly-priced food” (Pollan, 245).

Sustain Yourself by Eating for Health

Sustainable Nutrition is an idea whose time has come. The time-tested Eating for Health™ approach to personal, social, and global health, first articulated by Dr. Ed Bauman in 1989, emphasizes the benefit of eating fresh, local, seasonal, organic foods to promote well being and to support recovery from illness and injury. While other ‘diet approaches’ have come and gone in the past twenty years, Eating for Health™, by impact of its natural basis and comprehensive understanding of the essentials of nutrition, has stood the test of time. To eat for health is to practice Sustainable Nutrition and enjoy not only physical health, but mental, emotional, social, and spiritual growth. By making choices that are in line with the eternal plan for life on this planet, we help support and sustain humans, animals, and last, but never least, mother earth, who has nurtured life from time immemorial and needs a little help from us at this wonderful time of change and renewal.

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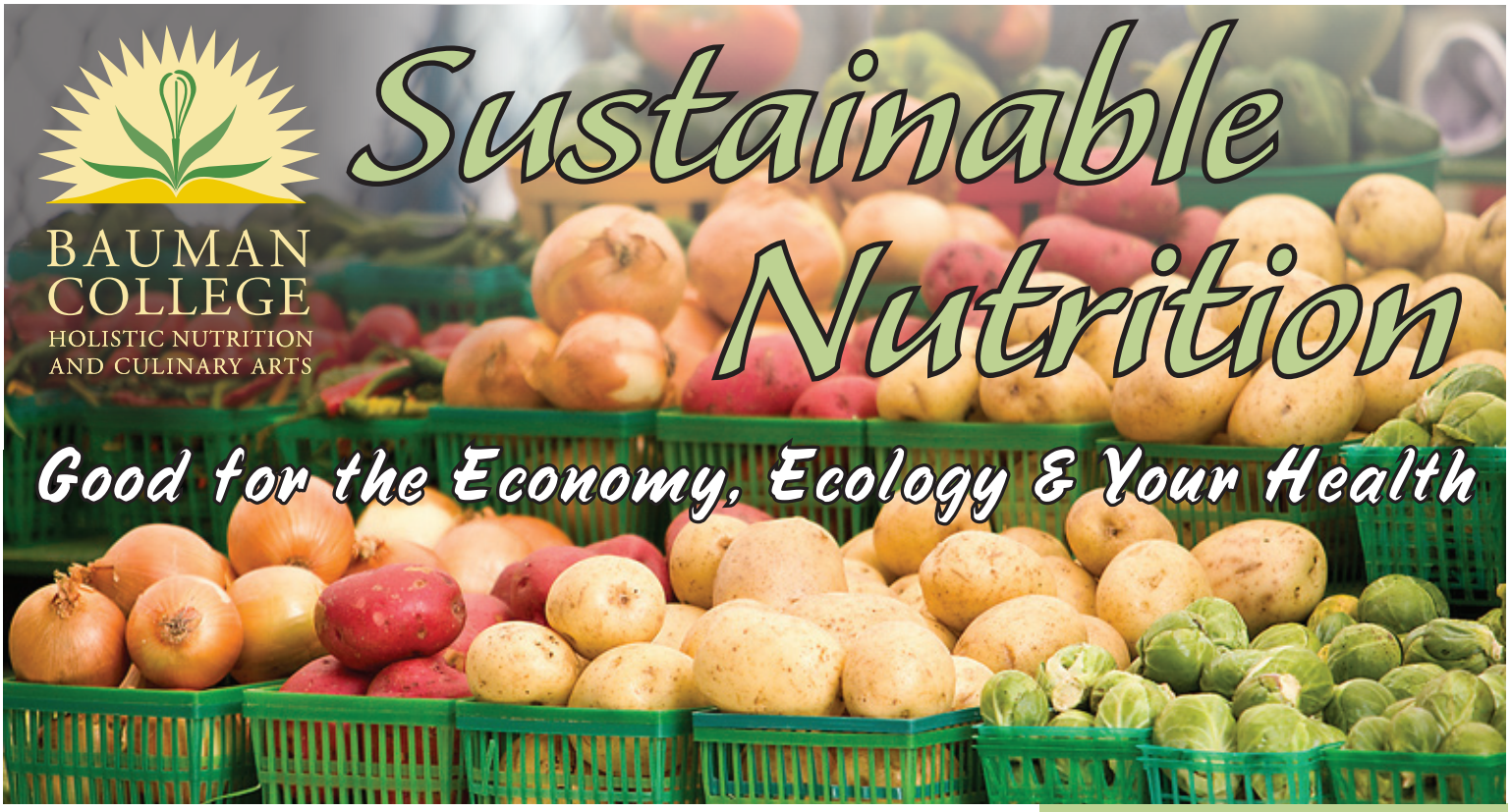

Sustainability Self-Evaluation

DO YOU ?	NEVER	SELDOM	OFTEN	ALWAYS
Shop at Farmers' Markets				
Pay for the value of organic foods				
Choose seasonal, local produce				
Grow fruits, vegetables and herbs				
Eat pasture-grazed meats				
Select free-range chickens and eggs				
Buy local, organic dairy products				
Choose wild fish				
Buy organic dry goods in bulk				
Avoid processed foods				
Select foods with less packaging				
Bring your own bags to the store				
Cook meals at home from scratch				
Use *Energy Star*® appliances				
Store food in glass containers				
Use a water filtration system				
Make fresh juice, tea and broth				
Make your own salad dressings				
Make your own hummus and dips				
Dry, can and freeze seasonal foods				

Every Choice COUNTS!

Raise your level of self-reliance and you raise your life force! In living leaner, cleaner, fresher and closer to the earth, we worry less about what's being done to us.

Take action today with an Eating For Health™ attitude and lifestyle that supports your love of life and nature.