HEALTHY SOIL, HEALTHY YOU: CELEBRATING EARTH MONTH

Contributed by Heidi Roth, RDN, CHHC

April is Earth Month – a perfect time to pause and reflect on the connection between our health and the planet's health. When we think about eating healthy, we usually focus on things like carbs, fats, proteins, vitamins, and minerals. But what if good nutrition goes much deeper, and starts before food even gets to our plates– in the soil our food is grown in? Let's talk about how our health is intricately connected to the health of the soil our food is grown in, and what we can do about it!

The Role of Nutrient-rich Soil

Healthy soil isn't just dirt; it's an intricate living ecosystem teeming with bacteria, fungi, earthworms, and other organisms that play essential roles in nutrient cycling.

Plants absorb nutrients from the soil, meaning that the quality of soil directly determines the quality of our food. Rich, healthy soil provides essential vitamins and minerals such as calcium, magnesium, zinc, potassium, and iron – that plants absorb. When soil is depleted of essential minerals and microbial life, crops grown in it lack the vitamins, minerals, and antioxidants our bodies need. In fact, USDA data estimates that the magnesium content of our fruits and vegetables has declined by about 80-90% over the past 100 years due to poor soil health!

Nourishing Your Gut Through Soil

Your gut microbiome – home to trillions of beneficial bacteria – plays a crucial role in digestion, immune response, and even mental health. Healthy soils introduce beneficial microbes to plants, which then positively influence our gut microbiome when we consume those foods. Recent studies underscore the connection between soil microbes and human gut health. Healthy food grown in healthy soil = a healthy gut.

The Downside of Industrial Agriculture

Modern industrial farming has dramatically increased crop yields, making food more accessible to the global population. However, these gains have come at a cost. Here's how industrial agriculture is affecting soil and ultimately, our health:

- **Soil Depletion & Nutrient Loss** – Mono-cropping (growing the same crop repeatedly in one field) strips the soil of vital nutrients, making it less fertile over time. Without diverse plant life to restore these nutrients, farmers rely on synthetic fertilizers, which do not replenish the full spectrum of minerals needed for optimal plant and human health.
- **Reduced Microbial Diversity** – The soil microbiome is crucial for breaking down organic matter and making nutrients available to plants. Pesticides and herbicides disrupt these beneficial microbes, leading to weaker plants that require even more chemical inputs to thrive.
- **Nutrient-Poor Crops** – Crops grown using conventional farming methods often have lower nutrient levels compared to those grown with organic or regenerative practices. Research shows that organic and regenerative crops tend to contain higher amounts of essential nutrients like vitamin C, iron, and magnesium.

The Impact of Farming on Meat & Dairy

The health of the land also affects the nutritional quality of animal products. Animals raised on pasture, where they can graze on diverse plant life, produce meat and dairy richer in omega-3 fatty acids, conjugated linoleic acid (CLA), and fat-soluble vitamins like A and E. In contrast, animals raised in industrial feedlots are fed grain-heavy diets that alter their fatty acid composition, resulting in products with higher levels of inflammatory omega-6 fats and lower beneficial nutrients.

Regenerative Agriculture: A Path to Healthier Food

Regenerative agriculture seeks to restore soil health through practices that mimic natural ecosystems. These methods not only improve soil quality but also enhance the nutritional value of food. Key principles include crop rotation, minimal tillage, integrating livestock, and using compost and manure instead of chemical fertilizers.

Beyond Nutrition: Environmental & Social Implications

Supporting regenerative farming isn't just about improving personal health—it has broader environmental and social benefits as well:

- **Carbon Sequestration** – Healthy soil stores more carbon, reducing greenhouse gas emissions and mitigating climate change.
- **Water Conservation** – Organic matter in soil helps retain water, making farmland more resilient to droughts.
- **Biodiversity Preservation** – Diverse plant life and healthy soil ecosystems support pollinators, wildlife, and overall ecosystem stability.
- **Fair Food Systems** – Small-scale farmers practicing regenerative agriculture often employ fairer labor practices, contributing to rural economic stability and food security.

How You Can Support a Healthier Food System

As consumers, we have the power to shape the future of food production. Here are a few ways to contribute to healthier soil, healthier food, and a healthier planet:

- **Support Farms that prioritize Soil Health.** Buy organic, pasture-raised, and locally grown products when possible. Visit farmers markets or join a CSA (Community Supported Agriculture)
- **Check out the Clean Fifteen and Dirty Dozen.** Visit EWG.com (The Environmental Working Group) to help you prioritize which foods to buy organic vs which ones may not be worth the cost.
- **Grow our own Food**. Even a small home garden can produce nutrient-rich vegetables while improving your connection to the food you eat. It's an affordable way to eat organic foods vs buying them at the store. Gardening also benefits your physical and mental health through exercise and stress reduction.
- **Compost at Home.** Composting food scraps and yard waste returns valuable nutrients to the soil.
- **Reduce Food Waste.** Reducing food waste conserves resources such as water and energy, and also helps reduce landfill and methane emissions. Plan meals wisely, store food properly, and find creative ways to use leftovers.

By prioritizing soil health through regenerative agriculture, we can produce more nutritious food, protect biodiversity, and help combat climate change. Healthy soil leads to healthier food, healthier people, and a healthier planet. As consumers, the choices we make can help nourish both ourselves and the world around us.

An excellent book to read if you'd like to learn more about this topic is *What Your Food Ate*, by David Montgomery and Anne Biklé.

What small changes will you make this Earth Month to support healthier soil and a healthier food system?

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