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Celebrating 33 years of working to protect public health and the environment in Northeast Wisconsin

SUMMER 2018

Good Food, Good Farming

Eat Healthy and Support Sustainable Farming in Northeast Wisconsin.

"It is imperative that we look to our food and farming systems as keys to restoring planetary and public health."

~ Melinda Hemmelgarn, M.S., R.D.

Introduction by CWAC President Dean Hoegger

Wendell Berry writes in *The Unsettling of America: Culture and Agriculture*, "For the true measure of agriculture is not the sophistication of its equipment, the size of its income or even the statistics of its productivity but the good health of the land." We agree and further argue that it should also be measured by the quality of the food it produces. We need food that is high in nutrition and free of agricultural chemicals.

It is unfortunate that all of these measures are becoming more challenging to meet due to the current political climate, especially for chemical free foods. Scott Pruitt, head of the Environmental Protection Agency is working to roll back safeguards designed to protect the public from pesticides and other threats to human health. The use of pesticides continues to rise including here in Wisconsin. New practices such as no-till and cover cropping sometimes rely on an increased use of glyphosate and other herbicides (see *"Cover Cropping and No-till Farming Reduces Runoff but Often Relies on Glyphosate,"* page 10).

But the good news is that Wisconsin leads the nation in the number of dairy and beef farms and is only second in the nation to California at 1,228 organic farms as reported by the *Milwaukee Journal Sentinel*. We list two organic beef farms belonging to CWAC members on page 11. There are also numerous community supported agriculture providers (CSA) who can provide your family with a scheduled

Read about Pat's Patch Certified Organic Produce on page 11.

delivery of local produce. A list of CSAs featuring organic foods begins on page 11.

Farm markets can also provide a source of organic foods. A reading of *"Choosing Organic"* on page 2 will provide you with some questions to ask growers who are not certified organic. A list of farm markets can be found in *"Mark Your Calendar"* on page 16.

The Union of Concerned Scientists noted that consumers are looking to the United States Department of Agriculture (USDA) to continue recent progress toward a healthier, safer, and more sustainable food system. However, during the current U.S. administration we will not likely find satisfaction. As Georgia governor, Sonny Perdue favored corporate interests over science and the public interest. There has been no indication of a different direction in his tenure as the USDA director.

Instead, we will need to rely on citizen organizations and local initiatives to guide us to a more sustainable and healthier agricultural system.

Meuer Organic Farm

By Charlie Frisk

I recently organized a field trip to the Meuer Farm outside of Chilton for the Aldo Leopold 5th graders as part of their sustainability curriculum. The Meuer Farm is a 150 acre farm owned and operated by David and Leslie Meuer and adheres to the highest levels of sustainability.

One of the things that enable the Meuer's to make a good living on 150 acres is diversity. The Meuer's produce grass fed beef, free range laying hens and meat chickens, whole grain flours, honey, strawberries, black walnut trees, and sweet corn. All of their plants and animals are raised organically. They also supplement their income with farm to table dinners and brunches, field trips, and a corn maze.

They raise "ancient" grains; some of which date back to the Egyptian and Roman empires. Their ancient grains typically only contain about 10% of the glutens found in modern wheat. Their grain flours are in demand by artisan bakers and are used by several local micro-breweries for beer production. I recently used their spelt to make pancakes and they were truly delicious.

The Meuer Farm is a fascinating and beautiful operation. I know it sounds a little cliché but they are truly one with nature; while there we saw bald eagles, osprey, brown thrashers and a host of other birds. They have activities going on almost every month; I have only scratched the surface in this article.

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Buttermilk Falls CSA, Osceola, Wis.

Accountability, Environment, Health Among Top Reasons for Choosing Organic Foods

By Melinda Hemmelgarn, M.S., R.D

As a Registered Dietitian, I'm frequently asked about the value of the organic label. Are organic foods really worth the higher price at the checkout? Are they more nutritious? What about safety? I advise consumers to make a wise investment in organic food, and here's why:

Trust

I want to believe the farmers at my local market who say their produce is "chemical free" or grown without pesticides. But I've been lied to. The truth is, few people enjoy interrogating farmers about their farming practices. By being certified, farmers make it easy for the consumer to purchase food with a legal set of standards, including: no genetically engineered seeds or genetically modified organisms (GMOs); no synthetic fertilizers; no sewage sludge; no irradiation; no growth hormones and no antibiotics. Most synthetic pesticides are prohibited, and only a limited number of pesticides are approved for use in organic systems.

You can learn more about organic farming practices at https://mosesorganic.org/whyorganic/.

Accountability

Our food dollars are votes for the kind of food system we want to see flourish. By purchasing organic food, we support those farmers who go through the rigors of organic certification. When farmers become certified they send a message to our government leaders who must take note of the growing numbers backed by consumer demand. If farmers aren't certified, they're not counted.

Safety

The topic of "food safety" often focuses on cooking and storage temperatures, or preparation methods. While it's true that harmful bacteria in improperly handled food can lead to serious foodborne illness, so can pesticide drift and residues. Because pesticide residues are rarely present on organic food, it makes sense to protect our family's health with the organic choice. Organic farming methods also benefit farm workers and their family members because they're not exposed to toxic chemicals in the field.

Pollinator Protection

Because organic farming systems promote biodiversity, and don't rely on the routine use of pesticides, choosing organic food helps protect pollinators, such as bees and other insects that are critical to food pro¬duction and agricultural resilience.

Antibiotic Preservation

According to the Centers for Disease Control and Prevention, antibiotic resistance ranks among the top global public health concerns. Resistance is due in large part to unnecessary use of these drugs in livestock to improve feed efficiency. Organic farmers help preserve and protect the effectiveness of our precious antibiotics because these drugs aren't allowed in organic farming systems. Increasing numbers of consumers are rightfully looking for antibiotic-free meat and dairy products. The organic label gives us that guarantee.

Nutrition

A growing body of evidence shows that foods produced using organic methods provide higher levels of beneficial nutrients—such as: antioxidants in produce and omega-3 fatty acids in meat and dairy—and less harmful contaminants, including pesticide residues and cadmium.

Climate

The food at the end of our forks has a tremendous impact on global climate change. The Food and Agriculture Organization of the United Nations recommends organic farming practices because they help sequester carbon, use less fossil fuel, and can help mitigate global warming.

Soil Health

The microbes in healthy soil are intimately connected and related to the microbes in the human gut, where the bulk of our "microbiome" resides. By protecting and supporting the biodiversity of organisms in the soil, organic farmers help protect the health of our entire ecosystem, including the organisms that live in our gut. Microbial communities connect agriculture, nutrition, medicine and life on our planet.

Water Quality

The Minneapolis Star Tribune's report titled: *"In Farm Country, tainted water is just the way it is,"* raised red flags about toxic agricultural practices. Water is our most essential nutrient, and contaminated water supplies harm public health and destroy the quality of our lives. Organic farming methods help protect our shared watersheds and all who live downstream.

Our Future

When Robert Shimek, Executive Director of the White Earth Land Recovery Project in northern Minnesota, took the stage at Beyond Pesticide's annual forum in Minneapolis last spring, he reminded us to ask "how are the children?" when assessing the success or failure of society.

Today's children are increasingly facing illnesses that have a connection to our food and farming systems. For example, the American Academy of Pediatrics reports an increasing rate of children born with neuro-developmental disabilities. The Centers for Disease Control and Prevention estimate that about one in six, or about 15%, of U.S. children aged 3 through 17 years have a one or more developmental disabilities, and Sesame Street's new character with autism confirms that we are witnessing a "new normal."

Children's cancer rates are on the rise, too, as well as allergies, and birth defects—all of which may be due in part, to exposure to environmental toxins related to agricultural chemicals.

Shimek explained that children living on the White Earth Reservation are regularly exposed to drift from pesticides sprayed on potatoes grown for McDonald's restaurants by the R.D. Offutt company. Potatoes grown in his region are sprayed every five to seven days with the fungicide chlorothalonil. The impact? Children in the region suffer higher rates of autism, and 18-21 percent qualify for special education programs, compared to the Minnesota state average of 13 percent.

Dr. Phil Landrigan, dean of global health at Mt. Sinai Medical School, reports that, "Until this year, most herbicides in the Midwest were sprayed during a six-week window, but now the heavy herbicide spray season will last at least four months, placing more women and children at heightened risk."

Mothers should not have to worry about toxins passed along to their infants during pregnancy, through breastmilk, or in community parks, schools, or their family's food and water.

In Starbuck, Minn., registered dietitian and organic farmer Mary Jo Forbord fears neighboring sprays on non-organic commodity crops will harm her family's health, livestock, and fruit orchard, named after her deceased son, Joraan. Her farm produces nourishing foods recommended by dietitians to reduce the risk of chronic disease. Last year she created a short film about her farm, food philosophy and life, including her husband's exposure to chemical fertilizer drift and resulting illness, confirming the imperative to produce food sustainably—without poison.

Growing numbers of spray drift incidents threaten organic farmers' livelihoods, health, and consumers' access to quality food. Yet in a recent New York Times article, Monsanto estimated that by 2025, it will have corn seed able to withstand five different pesticide sprays. However, make note: none are adequately tested individually for safety, let alone in combination.

It is imperative that we look to our food and farming systems as keys to restoring planetary and public health.

Melinda Hemmelgarn, M.S., R.D., a.k.a. the "Food Sleuth," is an award-winning registered dietitian, writer, and nationally syndicated radio host based in Columbia, Mo.

Listen to Food Sleuth Radio Thursday evenings at 5 p.m. at http://www.kopn.org.

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Grass-Grazed Animals Offer Health Benefits and Reduce Environmental Impact

By Debra Pearson, PhD

We've known for some time that the predominant conventional agricultural systems of our day can exact significant environmental toll, including degradation of our soil, air and water quality, loss of biodiversity, and deforestation.

More sustainable systems of agriculture, such as managed rotational grass-grazing of livestock, are being adopted to decrease this environmental impact and in some cases improve soil and water quality, and increase biodiversity. An additional benefit of sustainable agricultural systems such as grass-grazing is the improvement of the nutrient profile of the meat, eggs and dairy products that we derive from grass-grazed livestock.

Put another way, many of us can easily recognize heavily processed "fast foods" as unhealthy food choices given their relatively large amounts of added sugars, salt, and fats, and low fiber content. Yet, on a less obvious level our "modern" agricultural practices have significantly altered the nutrient profiles of the foods we eat. Thus, the slab of meat on your plate may look like that which your great-great grandmother or our distant ancestors ate, but on a cellular level those two pieces of meat are nutritionally quite different.

One important nutrient difference between grass-fed and grain-fed animals is in the total content and types of fats that are present in the meat, eggs and dairy from livestock.

Grass-fed meat is often lower in total fat content, typically by about 25-50% compared to grain-fed meat. Given that fat is more than twice as calorically dense as carbohydrates and proteins—fat is 9 calories per gram while carbohydrates and proteins are 4 calories per gram—leaner meats can help to decrease dietary caloric overload.

The types of fat in foods from grass-fed animals are different and considered healthier compared to grain-fed animals. At this point a little biochemistry primer may be helpful to better understand the different types of fats and their health implications.

There are three major types of fatty acids; saturated, monounsaturated and polyunsaturated fatty acids. Furthermore, the omega-6 (ω-6) and omega-3 (ω-3) fatty acids are two distinct, separate families of polyunsaturated fatty acids. All of these types of fatty acids are found in varying amounts in our cell membranes (all of us—humans, animals, plants, etc), and found in the fat cells of animals and humans.

Humans require some of both of these families. The question is how much and what ratio of these two is optimal for good health. There is still some debate about the optimal amounts and ratio of these fats, but the following gives us some useful guidance.

The diets of our ancient ancestors were estimated to contain approximately equal amounts of ω-6 and ω-3 fats, ranging from a 1:1 ω-6:ω-3 ratio up to about a 4:1 ratio. Since the industrial revolution particularly westernized countries have seen a dramatic rise in the consumption of ω-6 fats and decline in ω-3 consumption, resulting in a dietary ratio of 10:1 to 20:1 ω-6:ω-3.

This is an ongoing area of study, but research indicates that a high dietary intake of ω-6 fats and low intake of ω-3 fats (10:1 to 20:1 ω-6:ω-3 ratio) is a factor in the rising rate of inflammatory diseases in westernized countries. Omega-3 fats play a beneficial role in cardiovascular disease prevention, lowering blood triglyceride levels, decreasing heart arrhythmias and are important during pregnancy and infancy for optimal brain and eye development.

Thus, there is considerable research indicating that lowering our ω-6 fat intake and increasing our ω-3 fat intake (lowering our dietary ω-6:ω-3 ratio) confers significant health benefits and lowers disease risk.

Grass-fed animals have significantly higher ω-3 fatty acids and typically lower ω-6 fatty acids. This, then yields a lower (healthier) ω-6:ω-3 ratio in grass-fed animals. The amounts of ω-6 and ω-3 fats in a human's tissues or a cow's tissues (or chicken) are determined by the relative amounts of ω-6 and ω-3 fats in their respective diets. In fact, we lipid scientists are fond of saying "you are what you eat" when it comes to fat, and animals are what they eat when it comes to fat."

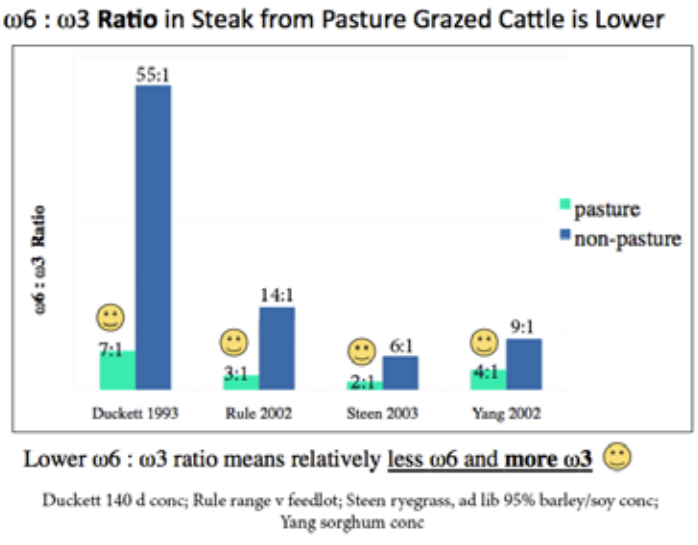
A few examples of foods that contain ω-3 fatty acids are green leafy vegetables, flaxseed, walnuts, fish, and grasses (the "veggies" that grass-grazing animals consume). Omega-6 fatty acids are heavily found in corn, soybean, sunflower and safflower and their oils. These oils are quite heavily used in the U.S. food supply (i.e., in margarines, salad dressings, baked goods and processed foods).

When one takes a look at these foods just mentioned and considers grain-fed animals, their corn/soy predominant grain diet means the meat, milk, cheese and eggs from these animals contains substantial amounts of ω-6 fats and relatively little ω-3 fats. Conversely, grass-grazed animals are eating grasses that predominate in ω-3 fatty acids.

Studies indicate that grass-grazed beef contains from 2 to 5 times more ω-3 fats than grain-fed beef, and has an ω-6:ω-3 ratio of about 2:1 compared to ratios of 6:1 to 15:1 for grain-fed beef. Choosing grass-grazed animal products is one way among several dietary tactics to improve our ω-6:ω-3 dietary ratio with its associated health benefits, while also helping to lower the environmental footprint of agriculture.

At a time when there is a need for healthy, nutrient-rich foods locally and globally, our most common conventional agricultural systems have been delivering the opposite—that is, foods with declining nutrient content or unfavorable nutrient ratios.

This graph shows various research findings that prove pasture fed cattle have significantly healthier ratios of Omega 6's to Omega 3's.



Duckett 140 d conc; Rule range v feedlot; Steen ryegrass, ad lib 95% barley/soy conc; Yang sorghum conc

Sustainable agricultural systems such as grass-grazing of livestock not only offer a smaller environmental footprint, but also offer potentially more nutrient-rich food with its attendant health benefits. What is good for the earth is good for us.

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About the author:

Debra Pearson received her doctorate degree in Nutritional Sciences from the University of California, Davis with a minors in biochemistry and endocrinology. She has conducted research on phytochemicals and heart disease, vitamin D and the nutrient profiles of grass-grazed dairy products and is the author of several scientific publications.

Dr. Pearson has lectured to health professionals and the lay public on a variety of nutrition-related topics, including the effect of agricultural practices on the nutrient content of foods, nutrition and women's health, cardiovascular disease and chronic degenerative diseases. Dr. Pearson is currently an Associate Professor at the University of Wisconsin - Green Bay, teaching courses in nutrition, biochemistry, and nutrigenomics.

"For the true measure of agriculture is not the sophistication of its equipment, the size of its income or even the statistics of its productivity but the good health of the land."

~ Wendell Berry,
The Unsettling of America: Culture and Agriculture

Phytochemicals: The Nonessential Nutrients That May Be Essential

By Libby Schmit, CWAC Intern

It has long been understood that water, carbohydrates, protein, fats, vitamins, and minerals are all necessary nutrients for the bodies overall health. These are known as essential nutrients. An essential nutrient is a nutrient that the body cannot synthesize or make enough of on its own, so it must be provided by the diet.

However, new research is coming out that there may be another crucial nutrient needed for optimal health. Phytonutrients, also known as phytochemicals, are naturally occurring plant chemicals. These are the nutrients that are often concentrated in the skins of fruits and vegetables and are responsible for their color, hue, scent, and flavor.

Each type of fruit or vegetable may contain hundreds of phytochemicals.

Phytochemicals originated to help plants survive in an often hostile environment before the years of the mass spraying of pesticides. Phytochemicals act as a natural defense system protecting the plants against bacteria, fungi, viruses and cell damage.

Once we eat these plants, research shows that they can influence the chemical processes inside our bodies in helpful ways. The same phytochemicals that protect plants also help the humans who eat them. Experts know that phytochemicals have antioxidant properties, meaning that they protect against substances called "free radicals" which can damage healthy cells.

Everything the plants have that you want.

According to the *Journal of the Academy of Nutrition and Dietetics*, in 82% of 156 dietary studies reviewed recently, it was found that fruit and vegetable consumption provided significant protection against many cancers. Finding that people who eat greater amounts of fruits and vegetables have about one-half the risk of cancer and less mortality from cancer. Fruits and vegetables are most effective against those cancers that involve epithelial cells, such as cancer of the lung, cervix, esophagus, stomach, colon, and pancreas.

The National Cancer Institute has spent in excess of $20 million over the past 5 years researching the anti-cancer potential of plant foods. The foods and herbs with the highest anti-cancer activity include garlic, soybeans, cabbage, ginger, licorice, and the umbelliferous vegetables (including carrots, celery, cilantro, parsley, and parsnips).

Foods with a modest level of cancer-protective activity include onions, flax, citrus, turmeric, cruciferous vegetables

(broccoli, Brussels sprouts, cabbage, and cauliflower), solanaceous vegetables (tomatoes and peppers), brown rice, and whole wheat.

Research is ongoing to confirm whether organic produce contains higher levels of phytonutrients than non-organic produce. Getting a concise correlation to prove this theory is difficult due to the many factors that affect growing food and the wide variety of phytochemicals that exist. There is a consensus in the research that indicates that organic produce does have higher levels of phenolic and antioxidant phytonutrients. Reviews of multiple studies also show that organic varieties provide significantly greater levels of vitamin C, iron, magnesium, and phosphorus than non-organic varieties of the same foods.

It seems likely that organic produce has more phytochemical content because without herbicides and pesticides the plants have to defend themselves. Greater defense measures taken by the plants equates to a greater phytochemical content. Better farming practices would mean better nutrients and greater health benefits. While research continues, the best bet for achieving the maximum health benefits is to make eating produce a priority, and why not choose organic foods that minimize exposure to harmful chemicals in the process.

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The Search for Sustainable Agriculture

By Valerie Dantoin

Editor's preface: *The following are excerpts from Ms. Dantoin's keynote speech at CWAC's April banquet about her vision for sustainable agriculture and a film that she helped produce. Valerie teaches sustainable farming at NWTC and works with her husband to manage a 180 acre grassfed beef farm.*

REgenerative farming instead of DEgenrative farming

I'm going to share a little about managed grazing, and then a little about how the documentary film, *Searching for Sustainability* was made, and finally, a few of words of gratitude & encouragement.

Rick Adamski, my husband, was a pioneer of this thing called managed grazing over 30 years ago. He taught me about grazing which involves moving cows to a new fresh, clean piece of pasture—every day. A paddock the size of a football field will feed about 50 cows for a day. The pasture is eaten by the cows from about thigh high, down to ankle high.

What does this have to do with clean water and why should you care? The important thing to know about pasture is that it is covered with a thick blanket of grasses which protects the soil **all year long.**

Others farms must plow fields and plant corn or soybeans to feed their cattle. That means there is bare soil that is exposed to snowmelt, and rain. And that can cause significant runoff pollution. Managed grazing farms like ours are practically a zero run-off farm. And of course that's important because agricultural runoff is the biggest cause of pollution in the bay, Lake Michigan, and in the groundwater of this area.

We call the kind of agriculture we do on our Full Circle Farm, "REgenerative" because we build soil organic matter and sequester carbon with living roots in the ground all year around. We also store nutrients in the soil and bank our wealth there for our next generation of farmers.

We don't flush the soil and nutrients down the river and into the bay and contribute to nutrient loading. That is DE-GENERATIVE agriculture and exploits future generations for our current benefit. It's selfish and may happen if a farmer doesn't think the land will be passed on to anyone who cares. They sell the land to the highest bidder and bank the profit while the soil and the water are all the poorer.

Farms like ours CAN produce milk and meat, and crops, as well as make a profit. It can also make a living and keep the water clean! It's a win-win-win situation. The key is managed grazing.

I want to make the world a better place for the next generation of

young people who must follow us onto the land and into the food system. I want farmers to wake up and realize that they produce food, not just ingredients. And they should grow the healthiest food possible.

***Searching for Sustainability* film.**

The goal of the film, *Searching for Sustainability,* that I co-produced with Michael Finny, is simply to show the sustainability of grazing farms and that farmers do have choices. We have ways of farming that can fix the problems agriculture can create while making food healthier.

We had a goal of getting this film to air on Wisconsin Public Television and to reach an audience of a half-million people. The director had connections at PBS and he knew the standards they required. So those in the film could not wear clothing with any logos, even though Organic Valley and Farmers Union were sponsoring the film. The film did air on PBS during Earth Week.

The film's manure segment is a little controversial, and some agricultural companies I approached wouldn't fund the film because they were afraid it might offend their bigger farmer customers. Hastings Mutual Insurance, Waseda Farms of Door County, and UWGB all contributed $5,000. I am so grateful to all the funders! I only have about $6,000 of the original $75,000 to payoff.

Finally, I want to say why I personally have put in hundreds of "volunteer" hours on this project. It is because, probably like you, I felt like I couldn't just stand by anymore, watching things fall apart. I teach sustainable farming full time at NWTC and that is very satisfying. But it's not enough. I wanted to get into the "public square" and tell the people about this amazing solution to pollution called managed grazing. Some Farmers know about it, but not the general public. That is why I am so pleased this film was produced.

What one thing will you do to make the water cleaner in NE Wisconsin this year? What action will you take to make a difference? We thought about this as we developed the outline for the film. We wanted to give a hopeful message, not just doom and gloom. We want to share what ordinary people can do to make a difference.

One suggestion is that people clean up the environment by trying to eat differently. You can act with your food dollar. Support farmers that support clean water. For example, drink milk from cows that graze or eat grass exclusively and do not eat corn. Try Organic Valley's new "Grass Milk". You can also eat meat from cattle that are fed on managed grazing pastures. Get pastured meats from SLO Farmers Co-op. Connect with them at https://www.slofarmersco-op.com. Eat "Clean Bay" beef. (see the article, *Local Producers of Grass Feed Beef, Pork, and Dairy*)

The great thing about gathering at an event like the CWAC banquet is that we can see that we are all in this together. We know we are part of a community that cares about the same things. We know we are not trying to change the world all by ourselves. I hope everyone tries their one new action to move us toward clean water this year. Each action, like each drop of water, is a small contribution, but it will all add up in the end.

Editor's note: *The Film is available on DVD and can be ordered at http://www.landsandlives.org*

CWAC will be supporting the distribution of the film to area high schools.

Manure compost being aerated.

Agricultural Composting: The Answer to Manure Management & Nutrient Recycling

By Lora Jorgensen

Farmers are the truest form of conservationists; they are the stewards of the land and depend on the health of not only their herd, but the health of the environment (land, water, air). This stewardship ensures not only a productive and prosperous year for their families, but also to support their local communities and the food chain that supports our entire nation (and in some cases, the world).

America is an industrialized nation, and because industry has become so prevalent, the American farmer has been sold a "convenience model" that inherently bypasses mother nature. While most farmers understand the biological process of composting and the importance of returning nutrients to the soil, they have become disconnected from how nature really works; without human, chemical or technological intervention.

Unfortunately, this disconnection has left the agricultural industry in the US in dire straits. Expensive equipment, ever changing technology, genetically modified plants, chemically engineered fertilizers and pesticides, monocropping, and the continued expansion of herd sizes to push the economies of scale to the limit, have had devastating effects on our nation's largest industry. Small, family owned farms have nearly vanished from our rural landscape, and are rapidly being replaced by industrialized

factory farms, including Concentrated Animal Feeding Operations.

While the concept of efficiency in this business model makes economic sense to financiers, the environment is not capable of supporting this concept, and is proving not to be a long-term sustainable solution. When the composting model and its benefits are explained to farmers, nearly every one of them realizes immediately that the "convenience model" that they have been sold is NOT the most convenient, economical or sustainable way available.

While the U.S. still does better than about 50% of the world in waste management and nutrient recycling, the lower 50% is comprised of mostly third world/undeveloped or under conflict. Europe leads the world in waste management and nutrient recycling, with most European countries diverting less than 25% of their waste to landfills and either recycling, composting, or using their waste for refuse-derived fuel or bio-fuels.

Most of these countries do not utilize the liquid manure model in agriculture, and in many countries, it is banned. The U.S. diverts over 50% of their waste to landfills, 20% is recycled, 15% is used as bio-fuel, and a measly 15% gets composted (mostly municipal waste).

Agricultural Waste Management is an industry that addresses the handling of all the waste streams produced in agriculture. Nutrient Recycling in Agriculture is the effectiveness of the conversion of "inputs" to "outputs". In the case of crops, nutrient-use efficiency is the ratio of nitrogen and phosphorus in crops (outputs) to nitrogen and phosphorus in mineral fertilizer and livestock manure (inputs).

Currently, the most widely used Agricultural Waste Management/Nutrient Recycling system in the United States, is liquid manure storage. This system is used by many larger dairy and swine farms. Liquid manure is transferred or collected into a pit or lagoon structure. It may be mixed, pumped into manure spreading equipment and land applied. This form of manure storage is the most complex and expensive system.

Composting is only beginning to gain acceptance within the industry in the United States. In other countries, especially in Europe, composting has dominated the market share of the municipal, human waste, landfill diversion and agricultural industry for decades, due to stricter environmental regulations. While the municipal, human waste and landfill diversion sectors have more readily implemented the composting concept in the United States, the agricultural sector has been left nearly untapped due to more lenient environmental regulations.

Why choose composting? Composting is a biological process, if you give Mother Nature the inputs (carbon source, manure) and ideal conditions (hydration, oxygen), the microbes/bacteria do most of the work for you. In ideal conditions, fresh raw manure can be transformed into sterilized finished compost in as few as 8 weeks. There are minimal (if any) environmental effects to aerobic composting, unlike the myriad of environmental disasters that happen with anaerobic liquid manure systems.

Compost can be safely stored, transported and spread. It can be used for many other applications other than just a soil amendment. Compost helps to rebuild depleted soil, by releasing nutrients that are bound in the soil into a plant available form. It also aids in moisture retention of soil, reducing or eliminating run off, erosion and desertification. Composting is also "neighbor friendly" creating no air/water/noise pollution. Unlike the liquid manure systems that cause noxious smells, run off issues, accidental spills on roadways and a variety of other issues.

Compost is a valuable commodity that can be sold, creating a residual source of income, unlike liquid manure. Most importantly, composting returns carbon to the ground where it needs to be to sustain plant life, rather than off-gassing it into the atmosphere.

Sustainable Farming Organizations: Working for Consumers and Producers

By Libby Schmit, Intern

Now more than ever, consumers are pushing for food and products grown to a higher standard. This means foods that are grown organically, locally, free from pesticides, hormones, antibiotics, and GMOs. This demand for greater quality food methods is outpacing production, creating a strong opportunity for farmers who become certified organic and practice sustainable farming methods to surpass other farmers. The support of local and organic farmers is a much-needed shift from large industrial farms that have been doing damage to human health, local economies, and the environment.

On the consumer end this all sounds great; however, individuals not involved in the production process often take little consideration to what this means to farmers who desire to make the transition to become more sustainable. Organizations like **MOSES and the Wisconsin Farmers Union** seek to provide our farmers with the information and support that they need to make that change.

MOSES, the Midwest Organic and Sustainable Education Service, is a nonprofit organization based in Spring Valley, Wisconsin. They promote organic and sustainable agriculture by providing the education, resources, and expertise farmers need to succeed.

According to MOSES's website, educating farmers about organic and sustainable production is the foundation of their work. The cornerstone of this foundation is the annual MOSES Organic Farming Conference. This is the country's largest conference on organic and sustainable farming. The MOSES Conference draws 3,000+ people each February to La Crosse, Wisconsin for more than 60 workshops, inspiring speakers, a two-floor Exhibit Hall, and organically grown food. The next conference will be held on February 21-23, 2019.

Beyond the conference, they also educate farmers about specific farming practices through MOSES Organic Field Days.

These events give farmers the chance to see firsthand how successful organic farmers manage their operations.

To learn more about their organization and what they are doing to support farmers and communities please visit their website at https://mosesorganic.org.

MOSES is not the only group working to support farmers. Here in **Wisconsin we have the Wisconsin Farmers Union**. Wisconsin Farmers Union is a member-driven organization. Their mission is "committed to enhancing the quality of life for family farmers, rural communities, and all people through educational opportunities, cooperative endeavors, and civic engagement." This organization accomplishes all this action by their core principles.

The base of the triangle represents education. Education of members and others is considered the foundation of Farmers Union's success in all areas of the organization. This is done by providing continued education for members of all ages through regularly held membership meetings and events.

Examples of recent events include workshops such as Women Caring for the Land, Solar Power, Local Climate Change Solutions, a Sand Mining Conference, an Emerging Leaders Retreat, a Women's Leadership Retreat, a Renewable Energy Tour, and Farm Bill Listening Sessions and Forums.

The sides of the triangle represent cooperation and legislation. The cooperation side of the triangle represents members working together to achieve common goals and Farmers Union's commitment to cooperative education and cooperative business development. This can be seen in the workshops mentioned above.

The legislation side of the triangle represents Farmers Union's lobbying efforts in the legislative arena. Wisconsin Farmers Union is a member-driven organization, meaning that the members determine the organization's policy toward important issues. Each year at their annual convention, delegates from across the state debate and adopt resolutions for their policy book, which they use to make clear and concise recommendations to legislators.

You can view their 2018 Policy Book at their website at https://www.wisconsinfarmersunion.com underneath Grassroots Policy.

Wisconsin Farmers Union is not only diverse in the resources they provide, but they also strive for diversity in the types of members they have. "Membership is made up of people from all walks of agriculture and life. From conventional to organic, rural to urban, our members find community in an organization that empowers them to have a voice in the issues that affect them."

Regardless whether you are coming from the perspective of a consumer or producer, there is a lot to gain from organizations like MOSES and the Wisconsin Farmers Union that ultimately benefit all of us in the end.

Sources: "MOSES Organic Farming Conference." MOSES, 23 May 2018, https://mosesorganic.org/conference/

Wisconsin Farmers Union, http://www.wisconsinfarmersunion.com/

Polich Family Farm. © 2018 by David Nevala for Organic Valley

Polich Organic Dairy Farm - Sturgeon Bay

The Poliches find strength in a community of farmers, in good times and in bad.

Reprinted with permission from Organic Valley

"One thing you notice right away about the organic cows is that they hardly ever get sick," says Mike Polich. "Farming organic seemed like the smarter method."

Mike would know—he's a fourth-generation farmer, and he has been around farms all his life. He met his wife Katie at college, and after they graduated, they traveled a bit. They were living in Florida when they heard that a family friend needed help on the farm back home.

That family friend turned out to be an Organic Valley farmer, and it was just the excuse Mike and Katie needed to head back to their roots in the Midwest. "Experiencing [organic agriculture] firsthand made it easier for me to make the decision to go organic once I started farming on my own," Mike says.

The weather in this stretch of northern Wisconsin can be a challenge. Mike and Katie's farm lies on a peninsula in Door County, Wisconsin, tucked between Green Bay to the west and Lake Michigan less than three miles to the east. The summers are cooler here than in the rest of Wisconsin, and rains can be sporadic. Worse, the Poliches' farm fell victim to a freak hailstorm in 2014, wiping out their hay, barley and winter wheat.

It was the worst hailstorm that anyone could remember, "a disaster hail" in Mike's words. And in moments like those, Mike and Katie found strength in the community of farmers around them.

It's a community they have come to know well over the years. "When I started out, I didn't have a knowledge base to work with," he admits. "I didn't know who to call if I had questions or a problem to work through or to find out where to get this or that. Now I know where to go and who to call."

With the help of their fellow organic farmers, the Poliches know that storms may come and go, but there will always be a friend nearby to lend a helping hand.

Continued...

Our appreciation also to these Organic Valley Dairy Co-Op Producers in N.E. WI

Managed grazing is the best way for farmers to keep the soil on the land, and it is a requirement of the co-operative. https://www.organicvalley.coop/our-farmers/11597/

Doug & Kathy Zillmer, Algoma, WI
Railside Dairy, Casco, WI
John Pogue, Deerbrook, WI
Keller Family Farm, Deerbrook, WI
Woodland View Farm, Deerbrook, WI
Gary Kiley, De Pere, WI
Ebenezer Dairy, Gleason, WI
Narrow Way Organic Farm, Gleason, WI
Pine River Farm, Gleason, WI
Andy Jaworski, Green Bay, WI
Virtues Farms, LLC, Little Suamico, WI
Adam Wavrunek, Luxemburg, WI
Robert and Lori Prahl, Luxemburg, WI
Eckardt Farms, Merrill, WI
Whispering Pines Farm, Merrill, WI
DeFere Family Dairy, Sturgeon Bay, WI

"I doubt very seriously if we will find a 4,000 cow dairy working the same land 100 years from now. Where would one propose to find the long-term land and water needs to support it; especially in areas and watersheds already over-stocked with animals and saturated with crop-plant nutrients?"

~ Steve Oberle, Ph.D.

Dennis shows his composted manure.

A Sample of More Good Farming Practices in N.E. WI

By Dean Hoegger

Dennis and Sherry Christoph Farm Composts Manure

The Christophs operate a conventional farm, milking about 75 cows with another 75 heifers. What is not conventional is their manure composting practice. They buy no chemical fertilizer except for a mineral supplement of calcium. Instead, they fertilize with composted manure on this Kewaunee County farm.

It all starts in the barn where they work to reduce the water content of the manure, then they move the manure to staged windrows where aerobic bacteria begin to breakdown the manure. The piles need to be turned regularly to provide sufficient oxygen content to maintain a temperature of at least 110 degrees. After two – four summer months, the compost is ready for spreading, usually after a crop harvest.

What is truly amazing is that they have significantly increased their corn harvest using this method. When they first began in 2010, their harvest was 27-57 bushels per acre. By 2017 they were up to 157-220 bushels.

This method of manure management has reduced their fertilizer cost, put more organic matter back in the soil, and reduced runoff and seepage of nitrates and pathogens into the ground water.

Vande Wettering Farm Uses Managed Grazing on Dairy Farm to Reduce Water Pollution

Brothers, Tom and Bill Vande Wettering, and their families, operate this 350 cow managed grazing operation in Brown County. They rotate their cows daily on small grazing paddocks with select grasses and legumes. Each paddock then has thirty days to recover before grazing resumes. They typically begin grazing by May 1. Last year the grazing continued until December 11.

This method substantially reduces the amount of manure that needs to be stored, transported, and then spread to fields, which for some farms can be miles away. By having the manure deposited by the animals directly on the ground, water pollution is substantially reduced. The manure droppings form "cow pies" which harden on the surface delaying passing through the soil as liquid manure does. It also exposes the manure to greater amounts of pathogen reducing sunlight. Microbes and insects are then able to begin the decomposition process and return the manure to the soil as a useable nutrient.

We need more managed grazing operations such as the Vande Wetterings'.

Cover Cropping and No-till Farming Reduces Runoff but Often Relies on Glyphosate

The practice of planting a cover crop, both after harvest and using inter-seeding, is gaining momentum in northeast Wisconsin to prevent runoff. One problem with growing a ground cover after harvesting a crop, such as corn, is that it did not grow enough to prevent fall and spring

Glyphosate (Roundup®) treated field.

erosion. Inter-seeding by planting a cover crop with corn, or planting corn into an establish cover, such as clover, has addressed that problem. Fall fields are often seen now with foot high groundcover in October.

However, many of these practices rely on the use of glyphosate, or other herbicides to either kill the cover in the spring before planting a Roundup crop, or to "knock back" the cover, such as clover, before planting into the existing cover crop.

Using glyphosate to control cover crops and for no-till practices will be an ongoing concern. Recent reports by the Union of Concerned Scientists and others indicate there may be links to the weed killer and non-Hodgkin's lymphoma. With nearly 300 million pounds used by farmers each year, and the fact that it has been found in our waterways and the foods we eat, practices that increase the use of the herbicide should be reconsidered.

Good Food From CWAC Members

Rick & Val Adamski, Andrew Adamski - Full Circle Community Farm

Our farm has been in the Adamski family for over 130 years. Our connections and commitment to the land are strong. Our mission statement is to "model sustainable farming that promotes health and well-being of the community, values family labor and people, and does no harm to the environment."

We use managed grazing as a key tool to conserve land and keep manure, soil and excess nutrients out of the water. We bank the nutrients in the soil for future generations rather than letting them slip off the farm and into waterways where they become pollutants. **We have been USDA Certified Organic for 15 years.** Through managed grazing we raise 100% grass-fed, organic beef that is available either as individual cuts, or an assorted
40# "box" of cuts or as half or quarter animal.

For more information contact:
Phone: Andrew Adamski at **920-373-2325**
E-mail: fullcircleorganic360@gmail.com
Website: https://www.fullcircle.farm/shop?category=Beef
Products sold: call to arrange delivery or come out to the farm to visit and pick up.

Lynn and Nancy Utesch - Guardians of the Field Farm

Lynn and Nancy raise 100% grass-fed beef with their herd of 50 cows on their 150 acres in Kewaunee County, using rotational grazing methods. Wishing to provide their family with beef raised using the standards they believed in, they began their operation with two Shorthorn cattle, back in the early 90's.

As more families sought beef raised with land stewardship and animal husbandry values in mind, an emphasis on human health and the benefits of grass-fed beef—their operation grew, affording the availability of their product to other families as well.

If you are interested in grass-fed beef or a farm tour of a grazing operation, you may call the farm at 920-388-0868. Availability is limited, but new customers are always put on a waiting list if interested.

N.E. WI Community Supported Agriculture Growers (CSA)

Here is a sampling of growers that are certified organic or indicating they grow without chemicals and provide farm market locations and pick-up and/or delivery options for good food.

Pat's Patch Certified Organic Produce
Patricia Thorp, Baileys Harbor
thorpshinn@gmail.com
Phone: **920-839-2704**. Exhibits at Sturgeon Bay Saturday Farm Market.
Certified by Global Organic Alliance

Emerald Acres Farm
David and Valerie Boyarski, Sturgeon Bay
www.emeraldacresfarm.com
Phone: **920-818-0513**. Exhibits at Sturgeon Bay Saturday Farm Market.

Produce, eggs, and chicken raised organically.

CSAs continued...

From: https://www.localharvest.org/appleton-wi/csa:

Rising Sand Organics, Custer

Rising Sand Organics is a worker- owned cooperative farm located in Custer, Wisconsin. Currently growing on approximately three acres, we grow a wide variety of diversified, certified organic vegetables for local farmers markets, wholesale, and CSA.

Nearest drop: Green Gecko Grocer and Deli
400 North Richmond Street, Appleton

Park Ridge Organics, Fond du Lac

Park Ridge Organics, LLC is a family owned and operated certified organic farm offering fresh seasonal produce since 2003. We have a well-known and high quality Vegetable Share Program (Community Supported Agriculture) offering bountiful shares of produce to over 300 members every week during the growing season (June-October).

Nearest drop: Appleton - **The Free Market**
731 W. Wisconsin Ave., Appleton

Kellner Back Acre Garden, Denmark

We are a small family-owned CSA and Organic Farm. In 2014, we received our organic certification with Nature's International Certifications Services for the farm, which means our chickens and eggs are organic, as well as free range. Our CSA shares are chemical free.

Nearest drop: Trust Local Food
3000 Apostolic St #1, Appleton

Olden Produce/Olden Organics, Ripon

Olden Produce is a Certified Organic & Certified Naturally Grown farm located on a fourth generation family farm with a rich heritage of being stewards of the land. We grow "Certified Organic" produce and offer that produce through our CSA, farmer's markets, and we sell it wholesale to local restaurants and grocery stores.

Nearest drop: Appleton
734 W. Wisconsin Street, Appleton

From: https://www.localharvest.org/green-bay-wi/csa

Good Karma Acres LLC, Green Bay

We are an urban, as organic and sustainable as possible, CSA farm in Green Bay. We turn unused, water guzzling lawns and empty lots into beautiful food producing farms! Our CSA season is 22 weeks long, from the first week in June, to the first week in November.

Nearest drop: Good Karma Acres
1112 Reber St., Green Bay

Ledgeview Gardens LLC, DePere

Ledgeview Gardens is a small, family owned farm dedicated to growing produce naturally and pesticide free. We have never used any harmful sprays on our produce. Our passion for sustainable growing stems from our roots in hobby gardening.

Nearest drop: Ledgeview Gardens LLC
5291 Cottonwood Lane, De Pere

Groche Organic Farms, LLC, Little Suamico

Our passion is to provide organically produced vegetables, herbs, and meat to hundreds of local families. We believe people deserve and need to eat clean, high quality, healthy food. We farm with organic methods that preserve our soils, lands, and environment.

Nearest drop: Kavarna
143 N Broadway, Green Bay

Good Earth Farm, Oakfield

Enjoy fresh seasonal produce picked at its peak through the Good Earth Farm CSA. We are a certified organic family farm offering CSA options June through December. Our practices are to farm responsibly and, as we call it, live lightly on the Earth.

Nearest drop: **Appleton North**
Greenleaf Drive, Appleton

The Action in Clean Water Action Council

By Dean Hoegger

The CWAC Dinner, Dance and Silent Auction, and Banquet was a huge success! *Thank you* to the 250 attendees and contributors to this year's banquet. A complete list of donors can be found on page15.

We were pleased to honor **Lynn and Nancy Utesch** with our Environmental Citizen of the Year Award for the many sacrifices they made while working to protect the waters of Kewaunee County and Wisconsin!

It is time to renew your membership for 2018 if have not done so. You can mail your membership donation or go online to http://www.cleanwateractioncouncil.org/membership/

Most of our members have already renewed. This is a reminder that membership dues are based on a calendar year. Please see your newsletter label or e-mail notice which indicates the last year that you donated and consider a more generous donation if you missed 2017 or 2016.

Read below about actions we have taken in the last three months.

Be sure to contact us if an environmental issue arises in your community. CWAC is here to support citizen action. The following are our most significant activities since March.

Legal Actions

As a citizen organization, an important function of CWAC is to take legal actions on behalf of our members to protect human health and the environment. Because individual members may be reluctant to file a legal action, the CWAC board of directors believes this is an important part of our mission. Here are some current legal actions and our efforts to improve environmental laws.

CWAC's Efforts to intervene in DBA vs DNR Settlement

Midwest Environmental Advocates previously filed the declaratory judgement action and petition for judicial review to challenge the DNR settlement with the Dairy Business Association on behalf of CWAC and several other petitioners. This settlement gave up DNR's authority over requiring manure runoff controls in vegetated calf hutch production areas.

This case is still active. MEA has filed a brief with the court in response to DNR's "Motion to Dismiss" our challenge to the settlement. The court dismissed the DNR's motion, after which, an out of court settlement was attempted with an offer to DNR to settle, which not accepted. The case will go to court in June with the DBA added as a co-respondent with the DNR, at the DNR's request.

CWAC works to pass NR151 revisions.

Although not a typical legal action, influencing the rule changes will have legal implications in the form of administrative rules. After serving on the DNR's Technical Advisory Committee, CWAC helped citizens demand these stricter manure spreading rules in karst regions were approved. Nearly all of our recommendations are in the new rules with the exception of requiring three feet of soil over karst bedrock. (See CWAC Fall Newsletter on page 2 for our recommendations: http://www.cleanwateractioncouncil.org/newsletter/)

Over spreading manure saturates the ground. The new rules will make this less likely. Photograph and report such over-spreading to your county land and water conservation office and the WDNR Spill Hotline: (24 hours/day) 1-800-943-0003.

We expect the rules to be implemented in July and that Kewaunee County will adopt the rules as a county ordinance allowing the rules to be applied even to CAFOs who received their five year permit this spring.

Thank you to all of our members who lobbied to move the NR151 revisions forward.

Citizen Petition for Corrective Action for the Clean Water Act, filed October, 2015.

On December 20, 2017, the EPA updated the status of their review of the "75 issues" indicating that 56 were resolved. See https://www.epa.gov/wi/npdes-petition-program-withdrawal-wisconsin-0.

With the arrival of former DNR Secretary Cathy Stepp as the new EPA Region 5 Administrator, concerns were raised in a letter to EPA as to her objectivity regarding our Petition. Stepp has agreed to recuse herself from this action.

The need for further litigation to resolve the remaining issues still needs to be discussed by petitioners and Midwest Environmental Advocates attorneys.

Update on Safe Drinking Water Act Petition for Emergency Action, filed with EPA October, 2014.

There has been no movement on this since the last newsletter. However, the revisions to NR151 are a direct result of the Petition. The petition and supporting documents can be found at: www.cleanwisconsin.org/kewaunee-safe-drinking-water

CWAC monitors actions by the state legislature.

Again, not a typical legal action, yet monitoring for harmful bills, and supporting those that provide greater protection, is necessary to insure that laws are not passed without public participation. Thank you to our members who submitted comments regarding the wetlands bill AB 547/SB 600 which will leave isolated wetlands unprotected. The bill was signed by the Governor.

Hopefully, the special state elections and fall elections will end the nightmare of bad environmental bills that we saw in the last session.

CWAC promotes ordinances to ban manure spraying.

CWAC continues to offer presentations to residents and town officials. CWAC gave presentations to residents and town officials in the Door County Town of Gibraltar and the Oconto County Town of Little River in the past year. The Town Boards both passed a manure spraying ban. Thus far, at least 17 northeast Wisconsin towns and cities have passed a ban. If your town has not passed an ordinance, contact us to help get a ban and protect your family from this health threat.

For more information on this concern, go to our website for Priority Issues: "Ban Manure Spraying" for more information. http://www.cleanwateractioncouncil.org/issues/spray-irrigation/

If your town has not passed a ban, contact us for assistance.

CWAC monitors water pollution permits.

We monitor for new permit notices and hearings and publish those in our Weekly Update and at times attend hearings and/or submit comments. See "Mark Your Calendar" on page 16 for upcoming hearings.

Join the Clean Water Act Enforcement Network

CWAC is sponsoring this group and providing training on how to monitor for pollution permit compliance. Group members monitor for pollution permit violations online and through onsite observations. Midwest Environmental Advocates is providing technical and legal support for the group. Research work can be completed at home, shared with the group online, and then reviewed during a monthly meeting in person or by telephone. Contact us if you would like to work on this enforcement effort to protect the waters of northeast Wisconsin.

CWAC Continues to serve on PFAS Contamination Citizen Steering Committee in Marinette

As reported on page 8 of the CWAC Spring Newsletter, per- and poly-fluoroalkyl substances (PFASs) have entered both ground and surface waters and are suspected of contaminating the waters of Green Bay. This especially concerning as Marinette obtains its municipal drinking water from the Bay. So far, tests have not found the chemicals in municipal water. However, a large number of wells have been found to have unsafe levels and testing of additional wells is planned.

Both the DNR and EPA is working with the fire extinguisher product company Tyco (now owned by Johnson Controls) to monitor the contamination and eventually clean up the source of the contamination, which is centered at the Fire Training Center in Marinette.

CWAC's Educational Efforts in the Community

Health Forums: Protecting Your Family from Toxins in the Home and Environment.

Our Health Forums will begin again in October. Fall presenters include Debra Pearson speaking about the latest research on the benefits of consuming meat, dairy, and eggs from grass –grazed animals, and a presenter from the Breast Cancer Coalition who will speak about the environmental links to breast cancer. The dates and times will be published in our fall newsletter around September 20th

Please consider sponsoring a health forum at the $150 level or contact a business who will be a sponsor. The forums focus on protecting our families from toxins in the home and environment.

Outreach and staff education efforts

Our Executive Director, Dean Hoegger and Intern Libby Schmit attended the Great Lakes Area of Concern Conference and attended and exhibited at the Door County Climate Change Forum.

CWAC provides interns with valuable experiences

Lora Jorgensen, Maryssa Paulson, and Jason Reeve served as interns for the Spring Semester and Lora also joined our Board of Directors at the end of May. We now welcome Libby Schmit to the office as our summer intern. See bios on page 17.

Presentations

Contact us to schedule a presentation for your group on a variety of environmental issues including The Hazards of Manure Spraying, Protecting the Waters of the Northeast Wisconsin, Barriers to Citizen Participation in Environmental Decision Making, The Hazards of Burn Barrels, Communities on the Road to Zero Waste and more. The presentations can be tailored to your group's age and available time. Also, contact us if you would like us to promote or co-sponsor your event or presentation. Below are additional community action efforts.

Since the last newsletter, we gave presentations to the Allouez and Greater Green Bay Kiwanis Club, Trout Unlimited, the Oconto Co. Democratic Party, the Unitarian Universalist Fellowship of Door County, and the Door Co. Democratic Party.

CWAC serves on Congressman Gallagher's Save the Bay committee for the Lower Fox River watershed

CWAC continues to serve on the committee's education and outreach subcommittee and we attended spring field day to see innovative practices to protect our water resources.

Efforts to Stop the Back 40 Mine

Aquila Resources received its Back Forty mine wetland permit opening the door to mine operations beginning. We will continue to use the concept of social license to stop the Back 40 Mine which is now more important than ever as the . We just signed on to a letter, along with 50 other community leaders, to Orion Mine Finance Group, a potential Back 40 funder. Send your own letter to Orion. Contact us for a sample letter and read the CWAC Weekly Update to learn about the latest community actions.

If you have not already done so, please contact your county supervisor or town officials to place passing a resolution opposing the Back 40 mine on their meeting agenda. These local governments have already passed a resolution: Marinette County, Brown County, Menominee County, WI, Door County, Shawano County, Menominee County, MI, City of Peshtigo, Oconto County, City of Marinette, Town of Porterfield, and the Town of Wagner. Contact us to support your efforts by providing sample resolutions and speakers.

Outreach through Newspaper and Radio

CWAC Vice President Charlie Frisk frequently has letters to the editor appear in publications around the state. He is willing to write an article for you.

Website Updates

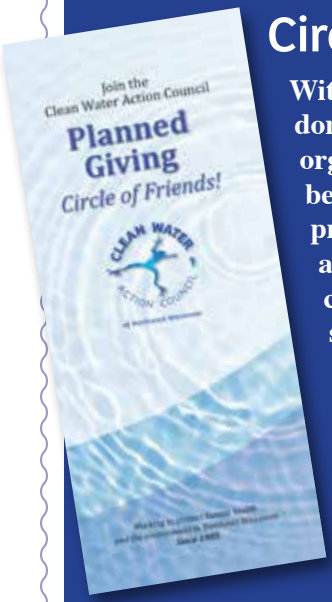
Articles and resources on our website continue to be updated as new information is available and past newsletter issues can be found at www.cleanwateractioncouncil.org

Get Our Weekly Update by email.

Each Tuesday we email the CWAC Weekly Update of actions, alerts, events, and the latest information on topics of concern. Send your postings by Monday evening. If you are a member with an email address and you are not getting the CWAC Weekly Update, check your spam folder before emailing us to request to be put on the mailing list. If you are reading this newsletter as a non-member, email us to be placed on the free Weekly Update list. Emails are sent via Bcc to protect your privacy.

Please follow us on Facebook.
Click here for our page: Facebook

Join Our Planned Giving Circle of Friends



Without planned giving donations or legacies, our organization would not be able to do the work of protecting human health and the environment at its current level. Please consider supporting our endowment fund at the Greater Green Bay Community Foundation with a gift in your will or bequest.

Contact us for a Planned Giving Brochure.

Thank You Silent Auction Donors!

5th and Jefferson
Aardvark Wine Lounge
Acme Beads – Beth Ruth
Ahnapee Brewery
Alborg Auto
Algoma Ceramic Shop
Alpha Delights - De Pere
AMO Gallery & Framery
Andrea Millard – Artist
Angela Lensch Jewelry
Angela Lensch Gallery
Ann Thenell
Art of Hair Salon
Badger Sports Park
Badger State Brewery
Balance From Within
Bay Area Yoga
Bay Shore Outfitters
Beach Harbor Resort
Bearcats
Beliot Snappers
Bella Luna Apothecarty
Betsy & Craig Hessel
Bike Hub - De Pere
Bob Hessel
Bonnie Dennis
Brown Co. Conservation Alliance
Buffalo Wild Wings
Bullpen Bar & Grill
Caffé Tlazo
Captain's Walk Winery
Cathie Demerath
Chalet Design & Boutique
Chalk Hills Campground
Charlie and Katherine Frisk
Child's Play
Chives
Chris Zimonick & John Hermanson
Cindy Carter
Clay on Steele
Complete Auto Body - Greenleaf
Curt Anderson
Dancing Bear
Dave Verhagen
DC Kayak
DC Candle Company
Dean and Julie Hoegger
Denny's Supervalue
Denyel Accessories
by Denyel Jacobson
De Pere True Value Hardware
Diane Christel
Donny's Glidden Lodge
Door County Eye Associates
Dos Caminos
Edible Arrangements
Erika Block
Family Nutrition Center
Family Video of De Pere
Festival Foods
Fiddlers Green, Washington Island
Fifth and Jefferson
Four Way Bar
Fox Harbor Pub & Grill
Fox Heights Pub & Grill
Fox Valley Greenhouse
Galley 57
Grace Yoga
Green Bay Botanical Gardens
Green Bay Packers
Gypsy Soul Jewelry - Lora Jorgensen
Harmony & Health Wellness Center
Hayden Groy
Heart & Hounds Boutique
Heather Lutzow
Heather Peterman
Hinterland
Hippy Wayne
Hoegger Pottery
Holiday Motel
Huntington Bank
Island Orchard Cider
James May Gallery
Janna Denil - Pampered Chef
Jeff Treml
Jennifer Wardlow
Jim Olson Motors
Jimmy Seas
John Kloes
Joyce Fritz Studio
K.K Fiske/Granary
- Washington Island
Kavarna Coffee House
Keggers Club
KeLe Alpacas
Kick Coffee
Kim Larson
Kimberly Van Donsel
Kochen Chiropractic - De Pere
Larry's Piggly Wiggly - De Pere
Little Brown Jug
Lou Sieler
Luna Café
Luxemburg Pharmacy
Luxemburg-Casco High School
Lynn Adrian
Lynn Thompson
Madison Ave Tattoo
Margaret Lockwood Gallery
Mary & Con Heleniak
Max & Dee's Honey Bees
Milwaukee Admirals
Monticello on Jefferson
Nadler Service, Lena WI
Neville Public Museum
Nicolet Bank
Nor Door Sport &Cyclery
North Shore Bank
Packerland Chiropractic
Pampered Chef – Janna Denil
Parallel 44 Vinyard & Winery
Paul & Ann Hartman
PDQ Car Wash
Peninsula Players
Penninsula Pulse/D.C Living
Poh's Corner Pub
Popelka Trenchard Glass
Pomp's Tire
Quantum PC
Roberts Hardware
Ron and Carol Vande Walle
Rustique
Sahs Auto
Sandra Shackelford
Sap Happy
Scaturo's Baking Co. & Cafe
Scenic Shore Inn
Scenic Shore Inn
Schroeder's Flowers
Sister Claudette Jeanquart
Skaliwags/Uncorked
Sonny's
Stacey Small Rupp
Starbucks - Ashwaubenon
Starr Realty
Seroogy's Chocolates
Starbucks - W. De Pere
Steel Bridge Music Festival
Steele Street Trading Co. & Gallery
Stephanie Theune
Still Mank Brewery
Stone Harbor
Taste of India
Terry Auger
The Glass Princess & The Bead
- Jennifer Wardlow
The Hairpist
Toyota
Village Grill
Von Stiehl Winery
Wave Pointe
White Lace Inn
Wild Prairie Silver – Joy Kruse
Wilson's Restaurant
Wisconsin Timber Rattlers
Woodman's
Woodwalk Gallery
Yellow Dog Studio
YMCA Howard
YMCA Sturgeon Bay
Zesty's Custard
Ziggy's Supper Club

MARK YOUR CALENDAR! Meetings, Events and Happenings

HEARINGS:

PUBLIC NOTICE OF INTENT TO REISSUE A WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT No. WI-0021741-08-0
Permittee: Village of Denmark, P.O. Box 310, Denmark, WI

Facility Where Discharge Occurs: Denmark Wastewater Treatment Facility, 400 Mahlik Lane, Denmark, Wisconsin. Receiving Water and Location: Denmark Creek, a tributary of the Neshota River, in Brown County.

Public Hearing: July 9, 2018, 10:00 a.m., at the DNR Green Bay Service Center, Lake Michigan Room, 2984 Shawano Avenue, Green Bay, WI.

LEDGEVIEW FARMS LLC, DENMARK, WI-REISSUANCE

PUBLIC NOTICE OF AVAILABILITY OF A NUTRIENT MANAGEMENT PLAN AND INFORMATIONAL HEARING AND INTENT TO ISSUE A WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT No. WI-0065421-01-0

Receiving Water and Location: Surface water and groundwater within the Unnamed Tributaries and Bower Creek within the East River Watershed, and ground waters of the state. Farm is seeking to expand from 2764 animal units to 3077. Dept. has tentatively decided above specified WPDES permit should be issued.

PUBLIC HEARING: July 10, 2018, 5:00 p.m., at the DNR Green Bay Service Center, Lake Michigan Room, 2984 Shawano Avenue, Green Bay, WI 54313-6727. Published May 30.

UPDATE: Ledgeview Farms was denied a manure pit permit by the town board which should be brought at the hearing. Will they have manure storage for an expansion?

FARMERS MARKETS

Wednesdays, May 30 - September 26, 3 PM - 8 PM
On Broadway Farmers' Market
163 N Broadway, Green Bay

Saturdays, May 26 - July 28, 7 AM - 12 PM
Green Bay Downtown Farmers Market
South Washington St, Green Bay

Thursdays, June 1 - August 17, 3 PM - 7 PM
Summer Market on Military
155 Green Bay Plaza, Green Bay

Thursdays, June 21 - September 27, 4 PM - 8 PM
Definitely De Pere Framers Market
101 N Broadway, De Pere

Tuesdays, June 12 – September 25, 4 PM - 7 PM
Howard Farmers Market
Howard Village Center, Howard, Wisconsin

Saturdays, June 16 - October 1, 8 AM - 12:30 PM
Downtown Appleton Farm Market
100 W. College Avenue, Appleton

Saturdays, June 16 - October 20, 8 AM - 12 PM
Future Neenah Farmers Market
Shattuck Park, Neenah

Saturdays, June 2 - October 27, 8 AM – 12:30 PM
Downtown Oshkosh Farmers Market
400 & 500 Blocks of N. Main St., Oshkosh

Saturdays, June 16 - October 6, 8 AM – 12 PM
Shawano Farmers Market
Franklin Park, Shawano

Saturdays, May – October, 8 AM – 1 PM and Tuesdays, June – September 12 PM – 5 PM
Manitowoc Farmers Market
720 Quay Street, Manitowoc

Thursdays, June 21 - October 4, 12 PM - 6 PM
Meet me at the Market
N7332 Water Circle Pl., Oneida

Saturdays, June 2 - October 27, 8:30 AM - 12:00 PM
Surgeon Bay Farmers Market
Market Square, Sturgeon Bay

OTHER EVENTS

June 27, 7 PM
Ground and Surface Water Pollution and Governmental Environmental Policies
Kress Pavilion, Egg Harbor

Todd Ambs is the speaker. Presented by the Door County Environmental Council

June 23, 10 AM – 3 PM
Norsk Family Farm Day
6366 Fredrickson Rd., Lena

Join a day on the farm with the Olson family at their 7th annual Norsk Family Farm Day, sponsored by Organic Valley and New Leaf Foods. This is a FREE community event. There will be many activities such as: train rides and petting baby animals, lunch on the farm and homemade ice cream, local food vendors, pasture walks, hay rides, square-foot & container gardening, bee-keeping, butter making, educational workshops and more! Find more information about the event on Facebook at https://www.facebook.com/events/944347445616817/

July 7-8, 10 AM – 5 PM
Under Our Water
Margaret Lockwood Gallery, 7 S. 2nd Ave., Sturgeon Bay

A 10'×10' tent will be set up so children can paint the inside walls to feel like they are underwater. This event is organized by Margaret Lockwood Gallery and Boys & Girls

MARK YOUR CALENDAR!

Club of Door County. This event will also be held on July 10 and 12th from 12 - 2 PM at Martin Park, 207 S. 3rd Ave., Sturgeon Bay

July 15, 7 - 9:30 PM
Water Folk Concert
Peg Egan Performing Arts Center, 7840 Church St, Egg Harbor

A concert and spoken word celebration of Door County's water. Artists will celebrate community and the importance of our water resources with musical performances by Small Forest, Katie Dahl and Rich Higdon, Sue Demel and John Abby, Eli Mattson, Cathy Grier, Dorothy Scott, with Roger Kuhns' short informational pieces. This event is organized by Peg Egan Sunset Concert Series, with the help of Jeanne Kuhns.

July 15-20
Seminar- Our Freshwater Future:
The Ecology, Economics, and Politics of the Great Lakes
Björklunden, 7590 Boynton Ln., Baileys Harbor

This seminar will take participants on an in-depth exploration of the ecology of the Great Lakes through scientific storytelling. From the formation of the lakes millennia ago to the interactions of native and introduced freshwater organisms of today, the seminar will then look to the future of water quality and quantity in changing climatic and political times. Participants will be fully immersed in the Great Lakes though daily interactive discussions and optional afternoon field trips to an ecological restoration site and/or local fishery. This event is organized by Björklunden and Lawrence University. Required reading: The Life and Death of the Great Lakes by Dan Egan. For more information and to register (required) visit their website: https://www.lawrence.edu/s/bjorklunden/bjorkseminars/seminars-2018/node/14326

July 1 – 17
Exhibit: "Our Water Stories"
Miller Art Museum, 107 S 4th Ave, Sturgeon Bay

"Our Water Stories" celebrates and explores our most precious and vital resource: water. "Our Water Stories" will serve as a platform for the Door County community to join together and engage in meaningful dialogue as it pertains to local water-based issues. This event is organized by Miller Art Museum.

September 15, 11 AM – 4 PM
WaterFEST
Crossroads at Big Creek, 2041 Michigan St., Sturgeon Bay

This family fair will have activities, displays, adult and kid programs and much more all designed to Celebrate Water. Free and open to the public. This event is organized by Crossroads at Big Creek.

Meet Our New Board Members

Lora Jorgensen is a 2018 graduate of UW Green Bay with a BA in Business Administration with an emphasis in Environmental Sustainability, Sustainable Business practices and Marketing. Before Lora accepted her current position on the Board of Directors for the Clean Water Action Council, she worked as a CWAC intern in the Spring of 2018, focusing her work on NR-151 and local water quality issues in the Kewaunee and Southern Door County Regions as they related to agriculture.

Lora, a lifelong resident of rural Southern Door County, is currently working as a Business/Sustainability Consultant specializing in Agricultural Composting, Freelance Marketing services (Graphic Design, Marketing, Advertising), and an Artist/Jeweler under her own brand, Gypsy Soul. She also serves as a trustee for the Village of Forestville and is the membership coordinator for the Lake to Bay chapter of the Farmers Union.

Carol Pearson recently retired as the Curriculum Director for The Einstein Project. In the past, she taught basic and Bio-organic chemistry at NWTC and LTC in Sheboygan. Prior to that, she was a water quality chemist at Donahue in Sheboygan and a brewing chemist for the Schlitz Brewery. She has a passion for engaging young people in science and potential careers in science. Another passion is caring for and preserving our natural resources and the environment. If we destroy, use up or pollute them, what will there be for our children and grandchildren? She learned this early growing up on a dairy farm in Kenosha county. The family farm is currently being impacted by Foxcon and her brother wonders about its future. Serving on the board of CWAC helps focus this passion in a very productive way. Carol is also the chair of the "Water, Whine and Wine" social justice group with the Green Bay Area AAUW branch. The group shares a glass of wine while writing letters to representatives concerning current issues focusing on water. Carol lives in Allouez with her husband Dale, a mechanical engineer. They have a son and daughter and three grandchildren.

Meet Our New Intern

Libby Schmit is a junior at the University of Wisconsin-Green Bay. She is studying Environmental Policy and Planning and taking special interest in Nutritional Science. After graduation, Libby plans to attend graduate school and gain experience analyzing the influence that soil and water quality have on the nutrient value of foods. Libby is interning for the 2018 summer semester.

WHAT ARE OUR PREVIOUS INTERNS DOING?

Brian Wagenaar

I interned for the Clean Water Action Council of NE Wisconsin during the Fall 2016 semester. During my time with CWAC I worked on the issue of coal pile dust and assisted with various other CWAC events and duties, including attending a "Factory Farm Summit" and writing about the myths and reality of factory farms for the CWAC newsletter. I graduated from UW-Green Bay in May 2017 with a Bachelor of Science in Environmental Policy.

I am currently doing a year of national service with AmeriCorps Cape Cod, where I get to do a great variety of projects including assisting with shellfish propagation, rescuing stranded dolphins, working on habitat management for endangered shorebirds, cleaning out herring runs, certifying vernal pools, educating children about issues of water quality, and helping run storm shelters.

My time with CWAC introduced me to the inner workings of a small environmental nonprofit and allowed me to learn a lot about environmental issues and working in an office setting. In the future, I would like to possibly do another service term with AmeriCorps and eventually settle into a career working on water policy issues.

Have you renewed your membership?

See your newsletter label or e-mail notice which indicates the last year that you donated.

Rebecka Eichhorn

I interned for the Clean Water Action Council of NE Wisconsin during the Spring 2016 semester. During my time with CWAC I assisted with our day to day office work, helped research and apply for grants and worked on articles for our quarterly newsletter. A large part of the internship that I especially enjoyed was participating in and preparing for our Annual Dinner, Dance, & Silent Auction Fundraiser. Some events I had the opportunity to participate in through CWAC included the Door County Climate Change Forum as well as the 3rd annual Lake Michigan Day hosted by the Lake Michigan Stakeholder.

I graduated from UW-Green Bay in May of 2016 with a Bachelor of Science in Economics. I am currently working for Bay Family of Companies here in Green Bay in the Accounts Receivable department.

Interning with CWAC offered me many new learning opportunities. I got to experience the business end and daily operations of a nonprofit as well as get involved with local environmental issues on many levels whether it be research, sharing information and educational resources with our community or networking with other like-minded groups who work to protect public health and the environment as we do.

I am continuing my work with CWAC by serving on the board of directors and as secretary.

CLEAN WATER ACTION COUNCIL
of Northeast Wisconsin

MISSION STATEMENT

The Clean Water Action Council of Northeast Wisconsin Non-Profit Corporation is organized to promote a safe, healthy, and sustainable environment in northeast Wisconsin, to educate and inform members and the public on environmental issues, and to take action on behalf of members and the public to protect the environment and human health. All operations are exclusively for charitable and educational purposes and for the promotion of environmental justice.

Join or Renew Your Membership to Clean Water Action Council for 2018!

☐ Renewal ☐ New Member Date_____

( ) $20 Individual ( ) $30 Family **(this amount would really help)**

( ) $50 Sustaining ( ) $100 Donor ( ) $500 Benefactor

( ) Non-member donation of $ _____for_____

( ) Other $_____

( ) Please send me information about making a planned gift to CWAC

Name(s)_____

Address _____

City _____State _____ Zip _____

Phone _____

E-Mail _____

Receive FREE newsletters with each membership.

Please choose one...

☐ Printed version ☐ E-mailed version

PLEASE VOLUNTEER!
(BE SURE TO PROVIDE PHONE NUMBER ABOVE)

☐ the newsletter ☐ events ☐ work at office ☐ mailings

☐ joining or leading one of the committees ☐ other

Send check or money order to:

Clean Water Action Council
P.O. Box 9144
Green Bay, WI 54308

CWAC is a registered non-profit organization.
Your contributions may be tax-deductible. ***Thank you!***

Office location:
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Green Bay, WI 54311

www.cleanwateractioncouncil.org

Find us on Facebook or updates on hearings and current or upcoming events.

The newsletter, "Clean Water Action Council of N.E. WI" is published quarterly by the Clean Water Action Council of Northeast Wisconsin, Inc., P.O. Box 9144, Green Bay, WI 54308, a registered non-profit charitable, educational organization. *Contributions may be tax-deductible.*

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"To be interested in food but not in food production is clearly absurd."

~ Wendell Berry

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