"How wonderful is it that nobody need wait a single moment before starting to improve the world"
—Anne Frank

Thank you for your willingness to help with the goal of achieving sustainability for our children, grandchildren and their futures

The purpose of this scholarship is to provide financial aid to individuals growing up in southeast Minnesota who are committed to sustainability in the fields of agriculture and forestry, have demonstrated leadership and communication skills, and are interested in pursuing a career in sustainable agriculture and/or forestry. Sustainable practices ensure clean water, health regenerative soils, and vibrant rural communities for future generations. The scholarship fund seeks to find the next generation of agricultural and forestry professionals who will learn how to manage our environment on a completely sustainable basis, provide food, fiber and shelter for people, and in the process protect our precious natural resources for our children and those yet to come.

If you too are concerned about the indiscriminate use of chemicals which are killing our pollinators, polluting our water, and negatively effecting our food supply, then JOIN US by donating today.

Contributions to the Fund are fully tax deductible.

Methods of contributions are numerous:

- A check or credit card is wonderful
- Matching funds from employer.
- Direct transfers from an IRA.[1]
- Endowments through your Estate Plan, wills or life insurance policies.[1]

1) See website for method and be sure to contact your financial advisor, accountant or lawyer for advise.

The Scholarship Endowment Fund is structured such that only earnings from the invested capital are used to pay for scholarship(s) and Fund operating expenses. This rule assures that the Fund will operate in perpetuity. The Rochester Area Foundation (RAF) is the steward of the Fund. RAF's administrative fees are 1.25% of the annual fund balance and are amply covered by RAF's investment performance.
Neither scholarships nor fees are reducing the endowment equity!

Interested in an educational presentation about sustainable agriculture and forestry for your club?

—contact us. We have a ~30 minute presentation which is easily expanded with a question and answer session.

Please help us find qualified candidates

Tell friends and neighbors about the scholarship. Two of our recipients did learn about it this way. Feel free to send us contacts to whom we can send information.
Each scholarship is for $5,000 and recipients are free to apply again in following years. Details are available on our website:

www.protectourresources.org

*100% of your donation goes to build this endowment fund!**

The Fund continues to receive new charitable donations, and we are grateful for repeat donations and the end-of-life bequests received.

This helps us build this Endowment Fund to become self-sustaining at a significant scholarship level of $5,000.00 per year or (much) more—forever. The size of the Fund determines how many scholarships we can provide.

Visit our website for additional details about past donors, honorees, how to donate using IRAs and wills, how to identify employer matching gifts, etc., and to download additional donation form.

*-Credit card fees are subtracted from the donated amount.

Note: We do not participate i the GivetotheMax campaign because of the fees involved. We want the maximum amount of your donation to go to building the endowment fund.

http://protectourresources.org

Please share this Newsletter with others who might be interested in helping the cause. Thanks!

To access the website with all its references, current and past newsletters, scholarship information, donor list and more, use your smart phone to scan the QR code:

Printed on at least 30% post consumer recycled paper. Forest Stewardship and Rainforest Alliance Certified.

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The Sustainable Agriculture & Forestry Scholarship Endowment Fund Newsletter

2019 Scholarship Recipient

JORDAN BUERCK of Winona is the 2019 recipient of the Sustainable Agriculture & Forestry Scholarship.

Always leave the soil better than you found it

He is starting his Junior Year at the University of Wisconsin at River Falls this fall majoring in Agricultural Studies, with a minor in Animal Sciences.

While he did not grow up on a farm he approached an organic farmer while a junior in high school asking if he could work on their farm. The farm is a grass-based beef and sheep farm committed to improve soil health and the long-term sustainability of their farm environment. The entire farm is under a rotational, perennial pasture setup and has been for the past 30+ years. Jordan works part time during the school year and full time during the school holidays and most weekends.

"Monocultures are a detriment to soil health." —*Gabe Brown, North Dakota farmer on 10,000 acres*

He has learned not only from the farm's owners but is attending seminars and talks. This includes attending the Land Stewardship Project (LSP) soil health workshops, and attending lectures by leading national experts in the field, such as Joshua Duakart, Dave Pratt and David Montgomery. (Joshua Duakart is operating a ranch in North Dakota practicing holistic management since 2008 working toward their financial, environmental and social goals. He is a speaker and consultant. Dave Pratt is a sought after speaker on sustainable agriculture and a ranch management consultant. David Montgomery is a University of Washington professor and author with books on ecology, geophysical sciences, soils, and the Microbial Roots of Life and Health. He is a popular speaker on the topics of soils and soil health). As his Farmer reference wrote, "Jordan is keen to apply what he is learning at their farm."

His coursework shows expanded exposure to a variety of agricultural topics such as soil, plant, food, and environmental sciences, and planning for a sustainable society.

Sensitivity to social issues comes from his volunteer work with Habitat for Humanity.

In addition to a solid academic performance (3.767 cumulative GPA), his leadership skills are being honed through presidential positions in the National Honor Society and Student Council while in High School, and the Beef Management Team at River Falls. He was also recently elected to the presidential office of the national organization Agriculture & Applied Economics Association's Student Section. His Beef Management Team faculty advisor, a Professor and Chair of the Agricultural Economics Department, writes how he has helped grow the student membership in the Wisconsin Cattlemen's Association while being involved in additional agricultural clubs, including participating in the Agricultural Economic Quiz Bowl team.

In response to our question of what receiving the Scholarship means to him he answered:

"It is my honor to be selected as the 2019 Sustainable Agriculture & Forestry Scholarship recipient. It encourages me that donors see the passion for the sustainable agricultural industry that I have. With this scholarship, I will be able to continue my education at UW-River Falls, and apply what I learn in the future. I believe there is a giant realm of sustainable agriculture that is yet to be tapped, and I look forward to providing a healthy, safe sustainable food product for the next generation."

The review panel of six, managed by the Rochester Area Foundation, unanimously agreed that Jordan has the qualities we are looking for in the Scholarship recipients:

1. *Have a demonstrated strong interest in and commitment to completely sustainable (as pertains to economic, social and environmental issues—combined) agricultural and/or forestry practices.*
2. *Be committed to protecting and preserving our natural resources and related economic and social condition.*
3. *Have strong communication skills.*
4. *Possess leadership characteristics.*
5. *Priority will be given to students active in agriculture/forestry also outside of school.*

Jordan received $5,000.00 for the upcoming school year—thanks to our donors.

Prepared and distributed by Deirdre Flesche and Dag Knudsen, Founding Contributors. Contact at dag@dagknudsen.com

Disappearing Pollinators Puts Our Food Supply at High Risk

The Scholarship Goal is to Fund Students Who Will Help Protect and Sustain our Futures.

The main threats facing pollinators are habitat loss, degradation and fragmentation. As native vegetation is replaced by roadways, manicured lawns, crops and non-native gardens, pollinators lose the food and nesting sites that are necessary for their survival.

Migratory pollinators face special challenges. If the distance between the suitable habitat patches along their migration route is too great, smaller, weaker individuals may die during their journey.

The improper use of pesticides can negatively impact pollinators and their habitats. Pesticides include products, such as weed killers and insecticides, which are designed to prevent, destroy, repel or reduce pests such as insects, mice and other animals, weeds, fungi, bacteria and viruses. Pesticides are used in nearly every home, business, farm, school, hospital and park in the United States and are found almost everywhere in our environment.

By their very nature, most pesticides pose some risk of harm to humans, animals or the environment because they are designed to kill or adversely affect living organisms.

US Fish and Wildlife Service

Our Future is at High Risk

The United Nations estimates if we continue farming as we are we will exhaust our arable land by 2077 and in the process kill off many organisms on which we depend.

An excerpt from the New York Times article By Brooke Jarvis Nov. 27, 2018: The Insect Apocalypse is Here

…"Riis had not been able to stop thinking about the missing bugs. The more he learned, the more his nostalgia gave way to worry. Insects are the vital pollinators and recyclers of ecosystems and the base of food webs everywhere. Riis was not alone in noticing their decline. In the United States, scientists recently found the population of monarch butterflies fell by 90 percent in the last 20 years, a loss of 900 million individuals; the rusty-patched bumblebee, which once lived in 28 states, dropped by 87 percent over the same period. With other, less-studied insect species, one butterfly researcher told me, "all we can do is wave our arms and say, 'It's not here anymore!' " Still, the most disquieting thing wasn't the disappearance of certain species of insects; it was the deeper worry, shared by Riis and many others, that a whole insect world might be quietly going missing, a loss of abundance that could alter the planet in unknowable ways. "We notice the losses," says David Wagner, an entomologist at the University of Connecticut. "It's the diminishment that we don't see…."

96% of North American Birds depend on insects

Insects and other arthropods, particularly spiders that themselves eat insects, are essential dietary components for 96 percent of North American terrestrial bird species. Insects are extraordinarily high in protein: They have up to twice as much protein, pound for pound, as does beef. Insects also have organs in their abdomens called fat bodies that are rich in high-energy lipids. Both protein and fat are the stuff of growth and thus make up the bulk of what breeding birds need to feed their nestlings.

www.birdwatchersdigest.com

"When we try to pick out anything by itself, we find it bitched to everything else in the Universe."

—John Muir

Famous bird species in the process of disappearing

A more intensive agriculture leads to massive bird death, and in 30 years Europe lost 421 million nesting birds. In Norway, 75 per cent of the vipe population has disappeared.

—A report from Norway

Observations

Beyond pollinators, insects are necessary for soil health, recycling of nutrients, pest control and much more, professor Dave Goulson at the University of Sussex in the U.K. told The Guardian. "Love them or loathe them, we humans cannot survive without insects."

—The Guardian

Researchers called the state of insect biodiversity worldwide "dreadful," explaining in no uncertain terms that unless we "change our ways of producing food" insects will become extinct in a matter of decades.

"The repercussions this will have for the planet's ecosystems are catastrophic to say the least, as insects are at the structural and functional base of many of the world's ecosystems since their rise at the end of the Devonian period, almost 400 million years ago," they noted.

—Science Direct

Abstract (shortened):

Worldwide decline of the entomofauna*:

A review of its drivers

Biodiversity of insects is threatened worldwide. Here, we present a comprehensive review of 73 historical reports of insect declines from across the globe, and systematically assess the underlying drivers. Our work reveals dramatic rates of decline that may lead to the extinction of 40% of the world's insect species over the next few decades. Concurrently, the abundance of a small number of species is increasing; these are all adaptable, generalist species that are occupying the vacant niches left by the ones declining.

The main drivers of species declines appear to be in order of importance:

1. ***habitat loss and conversion to intensive agriculture and urbanisation;***
2. ***pollution, mainly that by synthetic pesticides and fertilisers;***
3. ***biological factors, including pathogens and introduced species; and***
4. ***climate change.***

A rethinking of current agricultural practices, in particular a serious reduction in pesticide usage and its substitution with more sustainable, ecologically-based practices, is urgently needed to slow or reverse current trends, allow the recovery of declining insect populations and safeguard the vital eco-system services they provide. In addition, effective remediation technologies should be applied to clean polluted waters in both agricultural and urban environments.

—Biological Conservation (https://doi.org/10.1016/j.biocon.2019.01.020) A link to the report is available on our website.

*a fauna of insects **:** the insects of an environment or region.

The Solutions are in the Ground = Healthy Soil

Regenerative Farming is an approach to food and farming systems that rejects pesticides, artificial fertilizers and aims to regenerate topsoil, increase biodiversity, improve water cycles, enhance ecosystem services, increase resilience to climate fluctuation and strengthen the health and vitality of farming.

—https://en.wikipedia.org/wiki/Regenerative_agriculture

Your Contribution

In addition to choosing organic food as much as possible, you can protect insects in your own backyard by planting native plants in your garden, including wildflowers, avoiding the use of fertilizers and pesticides in your yard and mowing your lawn less often.

Also check the website for 7 things you can do for pollinators.

She Restored Unproductive Land

From *Solutions*, Spring 2019

"On Oxbow Farm outside Des Moines, Iowa, Ruth Rabinowitz walks along a wide strip of insect-rich prairie. To her right, the corn rises yellow and dense, to her left, prairie rolls down to a glassy creek.

"Seeing the land flourish like this is a heart and soul thing for me," she says.

Things were not always so positive.

When Rabinowitz became manager on her family's 1,650-acre corn and soybean farm in 2013, the earth was eroded, the soil poor, the waterways ploughed in. As a result, the land had become unproductive and wildlife had all but disappeared.

Rabinowitz got to work. She created 40-foot buffers along the edge of the fields, to capture runoff and protect the soil. Planted with native grasses and wildflowers, they also became valuable habitat for insects. She created new ponds which improved the land's ability to hold water, preventing runoff and erosion and providing new habitats for amphibians and migrating waterfowl. She improved soil health by using cover crops.

Today, one-quarter of Rabinowitz's land is under conservation programs. Monarchs, bees, deer and waterfowl have returned. Water loss and erosion are less of a problem. And—the goal of any farming business—the land is beginning to give back.

"There has been a huge transformation in the quality of our topsoil," she says. "And that has made a difference to our bottom line."

—From Environmental Defense Fund's quarterly news letter Solutions Vol. 50 No. 2/ Spring 2019 (www.edf.org)

For more details and quote and article links, visit our web site: www.protectourresources.org