"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

Interested in an

about sustainable

agriculture and

forestry for your

-contact us. We

have a -30 minute

presentation which

is easily expanded

with a question and

answer session.

educational

club?

presentation

Announcing the 2019-2020 School Year \$5,000.00 Scholarship

College students, who will be at junior or higher level in the fall of 2018, studying sustainable agriculture and/or forestry-in accordance with the scholarship's definitions- are invited to submit applications for the school year starting in the fall of 2019. Applications are due by March 30, 2019. The invitation will be available on January 15, 2019.

> For details and application information, visit the Scholarship website: http://protectourresources.org

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.

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.

<u>eeeeeeeeeeeee</u>eee

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

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
- \bigstar Matching funds from employer.
- ☆ Direct transfers from an IRA.¹
- ☆ Endowments through your Estate Plan, wills or life insurance policies.¹

The Scholarship Endowment Fund is structured such that only earnings from the invested capital are used to pay for scholarship(s) and Fund operating

100% ofyour donation goes to build this endowment fund!*

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!

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.

<u>http://protectourresources.org</u>

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

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

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



Announcing the 2019-2020 School Year Scholarship. See last page

An update from a previous Sustainable Ag & Forestry Scholarship Recipient—Allison Harvey:



and Land Resource Sciences that includes a project focusing on Soil Moisture Regimes and plant communities. She conducts research on the relationships between plant communities, soil moisture regimes, soil classification, and geomorphology in seasonally dry landscapes of the northwestern United States. The study focuses on addressing the usage of soil moisture regimes in taxonomic classification across the western US; particularly in the Pacific Northwest, where climate can vary considerably over short distances as a function of landscape position. Soil moisture regimes are commonly correlated with plant communities; however, relatively little data has been available to substantiate the relationships between SMRs and plant communities. She has helped finish establishing 5 respective soil temperature and moisture monitoring sites in Moscow, ID, Redmond, OR, Waterloo, OR, and Idaho Falls, ID

Always

leave

the soil

better

than you

found it

"Monocultures

detriment

are a

to soil

health."

farmer on

10.000 acres

-Gabe Brown,

North Dakota

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In the News Minnesota State College Southeast in Winona is starting a Sustainable Agriculture Food and Farming degree program.



Bruce Ause—An excellent example of the kind of leader we want to support with this Scholarship

Bruce Ause was the Director of the Environmental Learning Center (ELC) in Red Wing, MN for 30 years. Now retired, he volunteers at Frontenac State Park as an Interpretive Naturalist and hosts the blog wacoutanaturenotes.wixsite.com/mysite

Bruce and his wife Kathy grew up in Harmony, a city in southern Minnesota. He in the small city, she on a farm. Harmony is located at a transition: Look towards the east and you see the "driftless" area with its deep valleys and forests. Look towards the west and you see open land and prairie.

His interest in and appreciation for all things natural and nature came from his time spent with his grandmother in northern Minnesota during the summers. Fishing, rowing, collecting insects — spending all his time in the out doors.

With a degree in Biology Education he taught high-school for three years while also directing programs at the Long Lake Conservation Center for two summers. The latter proved to him that small group, "nature-based, inquiry driven, hands-on learning" * was the way to engage young people.

This experience motivated him to obtain a Masters Degree in Ecology at the University of Oklahoma. He was, at the time, told that there are no jobs for people with environmental knowledge and skills. A group of farsighted citizens in Red Wing, Minnesota would prove them wrong. They hired Bruce to create and direct the Red Wing Environmental Learning Center.

The Founders then told Bruce: Create your own programs. Adopting the principle that "I do and I Understand" (he also authored a book with this title - it is a very good read) he created the first program: "Under the ice muskrat trapping." A small group of kids went cross-country skiing, maple syruping in the spring, set traps and - yes - spent the time outdoors doing. Started in 1970, the ELC is still going strong. One of our scholarship recipients is a graduate of the Red Wing Environmental Learning Center.

As Bruce said: "How do you connect and understand the earth without involvement?" And that goes to his current frustration - how we are treating the land with total lack of soil health, appreciation and understanding. He believes we need to work with small groups, teaching the kids about the natural world so they will grow up and be champions of that world. He is looking for the multiplying factor: Educate the few to be strong believers and supporters and let them go out and multiply our efforts. That is also why he supports this scholarship. He, like this scholarship, is looking for people who will advocate, create and enforce policies and conduct research in order to Sustain us for the far future. Bruce is an excellent example of the kind of leaders we want to support with this Scholarship. So, he came to this interview with another donation in hand honoring another ecologically engaged couple. THANK YOU Bruce and Kathy!

* tagline from the Center's website

Healthy Soil is the Answer to Clean, Safe Water, Nutritious Food, and Carbon Capture The Scholarship Goal is to Fund Students Who Will Help Protect and Sustain our Futures.



"The long-term quality of our air, soil and water is being sacrificed for short-term gain. We will be sorry if we don't apply collective action to turn this around." *

Touss	Mississippi Riv	ver Estuary
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	Fr.	
The.	Dead Zone	
425	13 M	000
	340 Mile	s
The red s	shows area with less t	han 20% of normal oxygen
Lo	ss of oxygen means lo	oss of sea life habitat.
III	rage and text source: http://	www.noaa.gov
The G	ulf of Mexico's dea	d zone is caused by
human	s. These areas are t	preventable.
Them	itrianta thasa alaaa	blooms food on
rne nu	for synthetic ferti	ilizers and animal
manur	e human and indus	strial waste that wash
down t	the Mississippi rive	er.
TL	Lation to an allowed	and a fear from the
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Practic	alf lest l'here are l	ots of excellent
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meaning no chemical inputs.

Soil Health Devolution				
Shows a Sad State of Affairs				

	HISTORIC	NOW*	
Carbon stored	12—16%	o—1%	
Water Holding Capacity	Very High	Very, Very Low	
Floods	Few	Many	
Natural Soil fertility	Very High	Non-existent to Low	
Soil State of Health	Healthy	Dead/Near Dead	A No
Description	Soil	Dirt * in mono culture industrial ag.	NUM N

* The quote above is from a review of Erik Lichtenberg's paper "The Farm Bill, Conservation and the Environment," by Bonnie Blodgett, Star Tribune, Sunday January 28, 2018. Dr. Lichtenberg is a highly respected Professor of Agriculture and Resource Economics at the University of Maryland.

The Solutions are in the Ground = Healthy Soil

Soil Health:

The continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans.

Soil Health Quality ... also referred to as soil health, is defined as how well soil does what we want it to do. Healthy soil gives us clean air and water, bountiful crops and forests, productive grazing

lands, diverse wildlife, and beautiful landscapes.

Soil degradation results from

• Chemical disturbance, such as over-application of nutrient and pesticides which can disrupt the soil food web functions.



• Runoff which happens when soil is laid bare from lack of cover crops.





Healthy soil ...

- + Provides more available nutrients.
- ✤ Increases yield in our foods.
- ✦ Reduces greenhouse gas emissions and returns carbon to the soil.
- ♦ Provides clean and safe water.
- ✦ Reduces droughts and floods.
- ✤ Increases water retention and supply.
- ♦ Brings farms back to life: -Ecologially -Financially

Achieved with:

Soil Organic Matter is the energy-rich portion of the soil profile that's made up of plant and animal residue, along with the tissues of living and dead microorganisms. Organic matter makes up 5 percent of the soil, but controls 90 percent of its functions. Organic matter is approximately 58 percent carbon, so for every percentage increase in organic matter, there is a corresponding rise in carbon in the soil. (Soil Health, Water & Climate Change: A



Healthy soil allows plants to grow to their maximum productivity without disease or pests, and without a need for off-farm supplements.

-Rodale Institute.org/FST

Rotational crops, no till, and multiple species cover crops combined with rotationally grazed livestock.

Pocket Guide to What You Need to Know-Land Stewardship Project).

Solutions

Examples of successful farming without, or greatly reduced, use of chemicals are plentiful. One example reported in Washington Post (8/4/2017) showed that despite using nearly 90

percent less fertilizer, corn and soybean yields increased, soil quality improved, and soil erosion decreased by 25 percent, all without decreasing profitability.

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

For more details, visit our web site: www.protectourresources.org