

March 31, 2010



New Renewable Energy Scientist

Submitted by Eric Buchanan

My name is Eric Buchanan and I am the new Renewable Energy Scientist focusing on applied solar energy systems. I have always been interested in solar energy, and am excited to be applying my engineering experience to this field.

I have an Aerospace engineering degree from Purdue University and have worked as a design and project engineer in several different fields. I started with Thiokol corporation in Utah working on the solid rocket motors for the space shuttle then went to Morton International to design automotive airbags. My last engineering job was in St. Paul designing artificial heart valves for St. Jude Medical. For the last nine years, I have been coaching the FIRST robotics team and substitute teaching at the high school in Morris. I also design and build custom fine furniture as a business from my home.

My wife, Sarah, is a French professor at UMM, and I have two daughters, Angi and Jen, who are attending college in Moorhead. I enjoy lots of outdoor activities like backpacking, kayaking and playing tennis, and I teach a martial arts class (Aikido) in Morris. I am looking forward to working with all of you and hope you will stop by and introduce yourself if we haven't already met. I'm easy to find – right in front of the new solar panels!

AgCountry Auditorium

April 17 Hands on Horticulture
April 19 Stevens Co. Ext. Committee
April 20 Stevens County 4-H
April 21 PQA Training
April 26 NEA Meeting
April 29 Master Gardener Meeting

Seminar Room

April 16 Renewable Energy
April 22 WCROC Faculty Mtg.
April 23 Renewable Energy
April 27 Ext. Staff Meeting
April 39 Renewable Energy

Biomass Gasification Course

Submitted by Joel Tallaksen

The West Central Research and Outreach Center will once again be assisting with a biomass gasification course offered by the University of Minnesota Morris. Dr. Joel Tallaksen will be working with the class on biomass feedstocks and sustainability of biomass harvesting. He will also be talking about biomass processing and have equipment demonstrations at WCROC. A description of the short and long versions of the course is below. If you are interested in registering for either version of the course, please contact Chlene Anderson at 320-589-6461, anderchl@morris.umn.edu

MAY SESSION

The May session course runs from May 17-June 4. The course meets from 8a.m. to 5p.m. each day, we spend time in the classroom, laboratory, and field. We have a lunch break each day for an hour. This course is an introductory course in biomass gasification, and participants also receive college credit. Our goal is to have a diverse classroom, with UMM, MN West, Alex Tech, CEP participants and others in attendance. We provide a \$300 stipend to attend this course. We have affordable housing options so participants can stay on campus. For information check out the website: <http://www.morris.umn.edu/cecp/biomass/>

SHORT COURSE

We are also running a one-week short course during May and June. The course is five days: May 18, May 20-21 and June 2-3, 2010 from 8 a.m. to 5 p.m. We take an hour lunch break each day. This course is focused on an industrial audience and provides an overview of biomass gasification concepts, and provides several hands-on small-scale gasifier opportunities. We will cover the science, economics, and practical considerations of gasification in a compressed format. We offer a \$250 stipend to attend. And we provide housing options for participants who want to stay on campus. For information check out the website: <http://www.morris.umn.edu/cecp/biomass-shortcourse/>



Minnesota Master Naturalist Program

Submitted by: Amy Rager, Extension Educator, Environmental Science Education



The Minnesota Master Naturalist Program is completing its fifth year! With 490 active Minnesota Master Naturalist Volunteers, the program continues to be in high demand and to turn out excellent

and committed volunteers. Over 130 instructors have been trained, representing forty different local entities ranging from city, county, state, and federal government; to local nature centers. Minnesota is benefiting from the work of Master Naturalist Volunteers state-wide.

Just who are Minnesota Master Naturalist Volunteers and what do they think of the program? What do they learn during their 40-hour class? A Conservation Biology PhD student and an external evaluation team are using answers to these questions to help us to modify and improve the program. Here are a few of the things we've learned.

Motivation for Participation: When volunteers were asked why they participated in the Minnesota Master Naturalist program, the highest rated reasons cited were: to learn more about native plants and animals to learn more about Minnesota's natural ecosystems to engage in a personally enriching experience to improve skills to help others develop a stewardship ethic to be close to nature to improve skills promoting environmental conservation.

Participant Demographics: Approximately 68% of Minnesota Master Naturalist participants are from greater Minnesota, 18% are from the Twin Cities suburbs, and 14% from Minneapolis and St. Paul.

Satisfaction: Overall satisfaction with the course was very high. Participants especially liked the outside activities and field trips. About 94% of the participants stated that the course "met" or "exceeded" their expectations.

Instructor Ratings: Master Naturalist classes are taught by professional naturalists, whose program delivery earns high marks from participants. The most frequent rating for instructor qualities was "excellent", with the highest ratings for instructor enthusiasm, approachability and knowledge level.

Knowledge Gain: Pre- and post-class tests allow us to assess what Master Naturalist participants learn during their classes. Participants showed a statistically significant increase in knowledge based on a pre- and post course twenty question multiple-choice test. The Big Woods, Big Rivers course increased from a pre-course score of 10 (50% correct) to the average post-course of 16 (80%). The Prairie and Pothole course showed an average pre-course score of 12 (60% correct); this increased to 16 (80% correct) for the post test. The North Woods, Great Lakes course average pre-course score was 12 (60% correct); this increased on the post-course score to 15 (75% correct).

Preparation to Volunteer: Most class participants (over 90%) feel that the skills and ideas they learned in the class prepared them to volunteer in nature-related activities.

Summary 2009 Volunteer Category	Total Hours
Citizen Science	4626.00
Education/Interpretation	7808.60
Program Support	11622.38
Stewardship	5956.09
Advanced Training	7154.01
TOTAL HOURS	37167.08

