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ASABE WISCONSIN SECTION

The Newsletter of the Wisconsin Section of
the American Society of Agricultural
Engineers



*The Society for engineering
in agricultural, food, and
biological systems*

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WISCONSIN SECTION MEETING WEDNESDAY, JULY 12TH WISCONSIN FARM TECHNOLOGY DAYS

The ASAE Wisconsin Section meeting will be held on **Wednesday, July 12th**, in conjunction with the **Wisconsin Farm Technology Days Farm Show**. The show is being held this year in Sheboygan County near Oostburg – in Eastern Wisconsin (see map). The show will run from **July 11-13th**, with gate hours being from **8:30am to 4:30pm**.

The show is the largest technology exposition in Wisconsin showcasing agriculture. Hesselinks Quonset Farm will host the event. Their dairy operation consists of **800 dairy cattle including: milking cows, yearlings, and calves on 588 acres**. The Hesselinks have recently completed a new **500 cow free-stall barn and double 15 milking parlor**. Highlights of the show include field demonstrations of **harvesting, transporting, storing, and mixing**.

In conjunction with WALSA, we will be having a **Farm Technologies Day Picnic in Plymouth from 3:30-7:30pm**. There will be brats, burgers, salads, soda, beer, milk, and dessert. At **6:00pm**, Maria Redmond, who manages the **Alternative Fuels program with the Wisconsin Department of Agriculture, Trade, and Consumer Protection**, will speak about alternate fuel production in Wisconsin. She will discuss the current state of ethanol and biodiesel production and what is being done to expand production and develop the delivery infrastructure. This will be followed by a brief meeting to discuss any new business.

Three Tractor Teams from Wisconsin Go the Distance in IQS

Three teams from Wisconsin competed at the 2006 ASABE International Quarter Scale (IQS) Tractor Student Design Competition in Peoria on June 1-4. UW Madison, UW Platteville, and UW River Falls competed at the annual competition to try for the coveted Detra-Wehner Cup, a traveling trophy the winner takes home each year.

Sponsored by ASABE and drawing teams from 29 universities across North America and beyond, the International Quarter-Scale Tractor Student Design Competition is held annually. The program seeks to advance the technical and personal skills young engineers and technology students will need for success in the workplace.

Teams build a tractor from the ground up for the competition each year. They are given an engine and set of tires and are responsible for design, development, fabrication, testing, and presenting their tractors for the annual competition. This year, for the first time, all teams were allowed to use multiple engines; as a result, many of this year's 29 university entries were powered with two, three, and even four engines. That design change, of course, presents a new set of challenges. Some teams chose traditional two-wheel drive tires with the added power, and others attempted duals and four-wheel drive tractors.

The University of Wisconsin-Madison Badger Pulling Team balanced the design very well with three engines and a two-wheel drive configuration to earn 3rd Place Overall. The team was awarded 1st Place for Best Appearance, 1st Place for Web Site Design, 2nd Place for Pulling Performance, 2nd Place for Serviceability, 4th Place for Written Design Report, and 4th Place for Maneuverability, among other awards. This was the best overall finish by the Badger Pulling Team since 1999. This year's team was led by Design Leaders Garritt Boettcher and Chris Tamm and by Team Leader Nate Dudenhoffer. The team's technical advisor is Prof. Kevin Shinnars and the business advisor is Brad Brooks. Badger Pulling would like to thank all of the WI Section sponsors that made their success possible through financial or gift-in-kind contributions. A complete list of sponsors can be found at the Badger Pulling web site at <http://bse.wisc.edu/badgerpulling/>.

The University of Wisconsin - Platteville Pioneer Pulling Team chose a more traditional design of a single engine with dual wheels to focus on minimizing cost of production and durability. This year the team was led by Matt Hammer and advised by Dr. Mark Zidon. The team was awarded 17th Place for Presentation, 19th Place for Pulling Performance, and 22nd Place Overall, among other awards.

The University of Wisconsin – River Falls Falcon Pulling Team also chose a more traditional design of a single engine with duals, but added an interesting feature of locking/unlocking duals. The team was lead by Josh Betcher and advised by Kamal Adam and Jerry Nechville. The Falcon Pulling Team took 4th Place for Presentation, 6th Place for Ergonomics, 12th Place for Written Design, 17th Place for Pulling Performance, and 10th Place Overall, among other awards.

Many WI Section Members also participated through volunteering for judging and other work for the event. Their names and a special thanks will be featured in the next edition of the Resource Magazine. If you would like to assist in the competition next year, please contact Mark Crossley at crossley@asabe.org

Engineering Internships or Co-ops

One of the more important aspects of any engineering pre-professionals education is a summer internship or co-operative engineering experience. This engineering related work experience is invaluable because it allows the young engineer the opportunity to see how their engineering education will eventually be applied in a real-world environment. The engineering students will typically be involved with design, manufacturing, lab test, field test or even marketing activities. The most valuable internships or co-ops allow the student to be exposed to more than one of these aspects of engineering. Most engineering students and companies that hire these students start a dialog about potential opportunities in the fall semester and offers are made and accepted by early in the spring semester. If your firm is interested in starting an internship or co-op program, feel free to contact any of the academic advisors listed at the Department of Biological Systems Engineering web site at <http://bse.wisc.edu/>.

2006 ASABE WI Section Awards:

Agricultural Engineering Technology Student of the Year: Adam Danzinger

Adam is a senior majoring in Agricultural Engineering Technology at the University of Wisconsin River Falls with an expected graduation date of May 2006. After graduation he will work for Case New Holland as a Product Training Specialist. Adam's past work experience includes an internship with CNH in Hay Tools Marketing in 2005. He also has worked as a Farming Associate for DS Farms in Alma, WI where he operated equipment and helped milk on a 400 cow operation. He is a member of the UW-River Falls ¼ scale tractor pulling team and the UW-RF Agricultural Mechanization Club where he currently serves as treasurer. He is also serving as Secretary of the UW-RF chapter of Delta Theta Sigma Fraternity.

Biological Systems Engineering Student of the Year: Nathan Dudenhoeffer

Nathan is pursuing a Bachelor of Science degree in Biological Systems Engineering from the University of Wisconsin Madison with an expected graduation date of December 2007. This summer and fall he has accepted an internship with John Deere Ottumwa Works. Nathan currently works part time during the academic year in the UW Biological Systems Engineering lab. Additionally, he has worked on farms in Vermont, Nebraska, New Hampshire, and Maine where he gained experience operating equipment and feeding cows. While a member of the ASABE Student Branch at UW, he has served as Engineering Expo Chair in 2005, Treasurer for 2005-2006, and is the current ¼ scale tractor pulling team leader for 2005-2006. He is also a current member of Alpha Gamma Rho Fraternity as well as the Badger Dairy Club.

Biological Systems Eng. Graduate Student of the Year: Amanda Crowe

Amanda is pursuing a Master of Science degree in Biological Systems Engineering from the University of Wisconsin Madison. While a member of the ASABE student branch she has served as Secretary as well as AEM report co-chair for 2005-2006. She is a Soil and Water Conservation Society member and also a member of the American Society of Agronomy – Soil Science Society of America. Amanda has won numerous scholarships and awards during her academic career including the Ham and Janet Bruhn Wisconsin Distinguished Graduate Fellowship in 2004. Her research is on surface water quality impacts of management intensive rotational grazing. The goal of this research is to improve our understanding of environmental impacts of management intensive rotational grazing.

Agricultural Engineering Young Engineer Award: Bob Satori

Bob is currently an Engineering Manager for Manitowoc Cranes Company in Manitowoc, Wisconsin. He manages a staff of up to 15 full time engineers in the structural design and finite element analysis of lattice crawler and mobile hydraulic cranes. He also coordinated the ISO 9000 re-certification to the 2000 standard for engineering for Manitowoc Cranes. Prior to his promotion to engineering manager, he worked as a Staff Project Engineer and also a Design Engineer where he served on a number of assignments including coordinating the design team for the development of a 120 metric ton foundation crane. Bob received his Masters of Engineering in Professional Practice degree from the University of Wisconsin Madison in 2004 and his Bachelor of Science in Agricultural Engineering from UW Madison in 1994. Prior to working for Manitowoc Cranes Company, he worked as a Product Engineer and Production Supervisor for Case Corporation and also as a Production Supervisor for Archer Daniels Midland Company. Bob received his Professional Engineering License in September 2000. He is a past President of both the UW Madison ASAE Student Branch and UW Madison Chapter of Alpha Gamma Rho Fraternity.

Wayne G. Russell Award: Mark Cook

Mark Cook currently serves as manager of the Rural Electric Power Services Program (REPS), jointly administered by the Public Service Commission of Wisconsin (PSCW) and the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). In this role he is the principal electrical inspector of public utility electric distribution systems for the state of Wisconsin and responsible for public safety, regulatory compliance, electrical system design engineering, technical reporting, and coordination of REPS. Mark's leadership, professionalism, and generous spirit have had a lot to do with making a positive headline in the ag press on stray voltage possible. Mark's Leadership has been tried and tested through his 18+ year involvement in this highly controversial issue. He has managed to navigate the technical complexities and highly emotionally charged environment with integrity, skill and untiring dedication. In 1986 Mark was appointed to the Stray Voltage Task Force administered jointly by DATCP and the PSCW. As a Master Electrician, Electrical Inspector, and Electrical Designer Mark took part in

the design, implementation and reporting on the first stray voltage field study conducted in the state. Upon completion of this study Mark served as special assistant to the PSCW in 1988

during which time he helped develop the Commission's Stray Voltage Program and drafted the Commission's Stray Voltage Docket 05-EI-106 for which he also testified as a staff technical expert. Mark similarly assisted the PSC in the subsequent Stray Voltage Docket 05-EI-115, EMF Docket 05-EI-108, revisions to the Wisconsin Administrative Code and the PSC's Advance Plan Six. It was during this time that Mark also began his busy schedule of developing and lecturing in educational programs on stray voltage and other electric power issues. Mark has generously contributed countless hours of lectures to educational programs through the University Of Wisconsin, the Wisconsin technical college system and other professional associations. He has also found time to author no less than 40 technical papers and reports. These papers have provided a wealth of knowledge to people all around the world dealing with electrical safety on farms and stray voltage issues. Mark has dedicated his professional life and much of his personal energies to resolving stray voltage concerns in the state of Wisconsin over the last 18 years. He has spent many long days and late nights building countless new bridges and mending old ones to bring together several state agencies, electric utilities, rural electric power cooperatives, farmers, electricians, equipment dealers and other ag professionals to make a positive difference in the lives of Wisconsin's rural residents.

(Note: the above comments regarding Mark Cook are an edited version of the nomination papers that were submitted to the award committee on his behalf).

Schedule of Events

Wisconsin Farm Technology Days

Mark, Mike, Ben, and Scott Hesselinks Farm, W3018 Wilson-Lima Rd, Oostburg, WI

Show Hours: 8:30am-4:30pm

WALSAA Picnic / ASABE Business Meeting

John Fischer Farm, W5875 County Rd. U, Plymouth, WI

Social time: 3:30 – 5:00 pm

Dinner: 5:00 – 6:00 pm

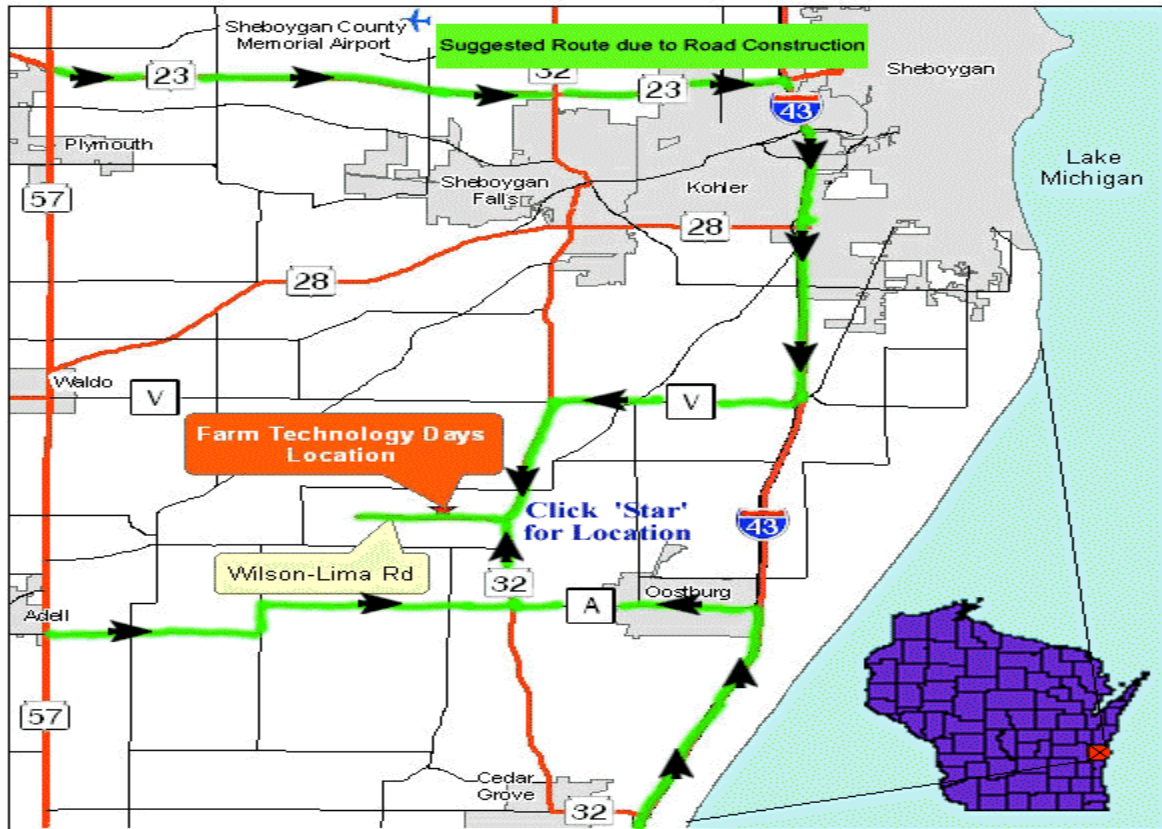
Program Speakers: 6:00 – 6:45pm

Maria Redmond – Wisconsin Department of Agriculture, Trade, and
Consumer Protection

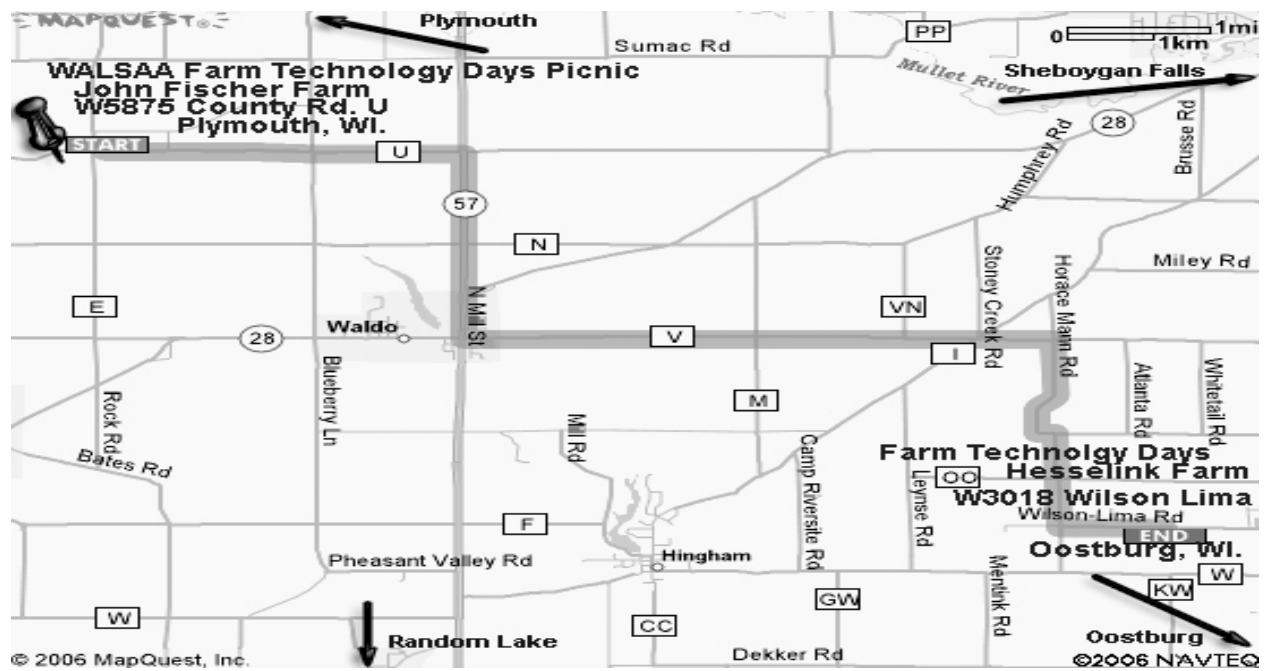
Business Meeting: 6:45 pm

Adjourn

Wisconsin Farm Technology Days



John Fischer Farm (from WFTD)



Treasurer's Report

February 27th thru June 16th, 2006

Opening Balance – February 27th, 2006

\$7,817.68

Revenue:

<u>Date</u>	<u>From</u>	<u>Memo</u>	<u>Amount</u>
Mar-31	March Meeting Dues		\$518.00
Apr-10	March Meeting Dues		\$40.00
Apr-21	March Meeting Dues		\$110.00
Jun-15	ASABE National Section Reimbursement (Section Dues Rebate)		\$161.00

Total: \$829

Expenses:

<u>Date</u>	<u>To</u>	<u>Memo</u>	<u>Check #</u>	<u>Amount</u>
Mar-13	Adam Danzinger	ASABE Student Awards	539	\$150.00
Mar-13	Nathan Dudenhoeffer	ASABE Student Awards	540	\$150.00
Mar-14	Amanda Crowe	ASABE Student Awards	541	\$150.00
Apr 10	Bob Loehr	Section Meeting Expenses	542	\$989.87
Apr 14	Don Thiemke	Award Plaques	543	\$150.34
Apr 25	UW Madison	Award Plaques	544	\$25.00
Jun 2	Bob Loehr	Section Meeting Dinner	545	\$112.83

Total: \$1728.04

Closing Balance – June 12th, 2006

\$6918.64

WI Section ASABE Budget

Below is the 2005 budget compared to the year-to-date tracking for each of the categories listed.

<u>Category</u>	<u>2006 Budget</u>	<u>2006 YTD</u>
Awards	\$600.00	\$625.34
Misc	\$50.00	\$0.00
National Dues	\$1,950.00	\$1,591.00
Officer Meeting	\$150.00	\$112.83
Section Meeting Dues	\$2,500.00	\$1,643.00
Section Meeting Exp	\$2,500.00	\$1,929.03
Speaker Gift Certificate	\$150.00	\$0.00
Student Support	\$650.00	\$400.00
Total Revenue	\$4,450.00	\$3,234.00
Total Expenses	\$4,100.00	\$3,067.20
Account Gain / Loss	\$350.00	\$166.80

Respectfully Submitted,

K.G. Karthikeyan

Wisconsin Section ASABE Treasurer 2006-2007

Secretary's Report March 29th, 2006

Wisconsin Section ASABE

The spring meeting of the ASABE Wisconsin Section was held on March 29th, 2006 at LaSure's Hall. Jeff Montsma, a field rep for Alto Dairy, and Hans Horetzki, Director of Engineering for Alto Dairy, both made presentations. Jeff presented on milk production statistics and where processing capacity is located and where future capacity if planned. Hans presented on wastewater handling and concerns associated with the processing of cheese. A virtual tour of the Alto Dairy plant was shown. A dinner followed.

1. The meeting was called to order at 6:30PM by Pat Pritzl.
2. The opening and closing balance was read and a call for an approval of the Treasurer's Report as printed in the newsletter. The motion was made and seconded.
3. A call was made to approve the Secretary's Report as written in the newsletter. The motion was made and seconded.
4. The following awards were presented:

Agricultural Engineering Technology Student of the Year:	Adam Danzinger
Biological Systems Engineering Student of the Year:	Nathan Dudenhoeffer
Biological Systems Engineering Graduate Student of the Year:	Amanda Crowe
Agricultural Engineering Young Engineer Award:	Bob Satori
Wayne G. Russell Award:	Mark Cook

5. The following members were recognized for their commitment to the organization.

Name	Years of membership
Robert Fick	25
Lawrence Gruenberger	25
Mark Purschwitz	25
Leslie Virtue	25
B. Bennett Reak	40
Donald Doyle	50
Ronald Leonard	50
Weldon Murphy	68

6. The meeting was adjourned at 8:00pm.

**REGISTRATION
WISCONSIN FARM TECHNOLOGY DAYS
JULY 12, 2006**

	Number Attending	Cost	Total
Dinner – 4:30pm	_____	\$10.00/person students free	\$_____

Name(s): _____

Address: _____

City/Town: _____ State/Zip _____

Telephone: (____) _____ - _____ FAX: (____) _____ - _____

e-mail: _____

Return completed form by **July 5th** to:

Scott Sanford
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