ASABE - The Society for Engineering in Agricultural, Food, and Biological Systems

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**From the Chair** – The Spring Awards Meeting is always a good opportunity to reflect upon the innovations and activity generated within our Section. The ASABE society is made up of the academia world as well as the industry world. Our Section heavily reflects the industry world. Within that area, I believe our Section to be one of the leaders, which was evident by all the awards, patents, and recognition shown in our Spring Meeting.

I would again like to congratulate all of our recipients on their accomplishments this year. Recognizing members that hit 40, 50, and 60 years of ASABE membership was truly humbling. It was also an honor to present the Member of the Year Award to former colleague and mentor Bruce Coers. Bruce brought back fond memories and left us with the lesson to find the opportunity within any problem.

I would also again like to thank Aaron Bruns and Jeremiah Johnson for our after dinner speech featuring their work on the Outstanding Engineering Achievement Award winning 'Active Yield' project. This use of technology is exactly the kind of Spring 2017

innovation we need to satisfy the world's growing population food requirement, and I'm pleased to see that it is coming from within our own community. It was also a treat to get a glimpse of the past of John Deere's tractor development from Neil Dahlstrom. The key takeaways for me was how John Deere has always stayed true to their way of doing business throughout the last century and we see the results in the prevalence of the brand. Also, the dedication it takes to continue to pursue your goal even when market outcomes look bleak. With the current downturn in the ag economy, I look to this example to inspire perseverance.

I look forward to transitioning to the Past Chair role and liaison to the QCESC. While attending the QCESC National Engineers Week Banquet, I had the opportunity to observe some of the student projects. The accomplishments these young teams make are astonishing. These opportunities did not exist while I was growing up, so ensuring kids today can learn about STEM is something that is deeply important to me. This will allow me the opportunity to promote the agriculture field and help shore up America's gap in the future of STEM educated individuals to fill the work force. I would challenge our Section members to find ways to become involved in youth activities and help students see the benefits and opportunities within the engineering disciplines of ASABE.

Lastly, I would like to thank each of the members of our Executive Committee for helping to make our Section activities successful. It is an honor to see my name added to the plaque of Past Chairs. I look forward to the future and to the opportunities our newly installed leadership team will successfully lead! – Chance Corum, 2016-2017 Quad City Section Chair

Awards Meeting Review The Awards Meeting was held on March 28<sup>th</sup> at the Thunder Bay Grille in Davenport with approximately 55 members and guests present.

The meeting began with a technical session presentation on The Origins of the John Deere Tractor by Neil Dahlstrom, manager, Archives and History, for John Deere. Neil has authored two books, including The John Deere Story: A Biography of Plowmakers John and Charles Deere, and is editor of The Plowshare, John Deere's quarterly digital magazine dedicated to John Deere history.

2018 will mark 100 years of John Deere tractors, dating to the acquisition of the Waterloo Gasoline Engine Company in 1918. That purchase was preceded by six years of internal development involving three separate tractor designs leading to the introduction of the John Deere All Wheel Drive Tractor in the 1917-1918 time period. These tractors were built in the Marseilles Works in East Moline with only about 90 ever produced. With the purchase of the Waterloo Boy factory in 1918, Deere began marketing this tractor before introducing the Model D in 1923.

The after-dinner program began by recognizing the membership longevity and patent award recipients who are listed below. In addition, Section members serving on national committees were also recognized and are also listed below. The awards program concluded with presentation of the Section's three local awards.



Aaron Bruns Jeremiah Johnson

Aaron Bruns and Jeremiah Johnson were the recipients of the 2017 Outstanding Engineering Achievement Award for their role in the development of the John Deere ActiveYield system.

ActiveYield utilizes three weighing sensors in the combine grain tank to automatically calibrate the yield monitor. This ensures producers always have accurate yield information to support their agronomic decision making. ActiveYield received an Agritechnica Silver Medal in 2015. The recipients gave a presentation on this innovative design as part of the after-dinner program.



Cody Freehill

Cody Freehill is the Quad City Section's 2017 Young Member of the Year. Cody has done an outstanding job serving as the section's Scholarship Chair for the past eight years. Cody received his B.S. (2006) in Agricultural Engineering from the University of Illinois. In 2006 he joined John Deere where he has contributed to several combine design areas leading to his receiving four patents. At home, Cody, his wife Beth and son Wyatt enjoy managing a feeder cattle operation outside of Fenton, Illinois.



Bruce Coers

Bruce Coers is the ASABE Quad City Section's 2017 Member of the Year. He received his B.S. and M.S. degrees in Mechanical Engineering from Bradley University. Bruce retired from the John Deere Harvester Works in 2014 after a distinguished 35 year career in which he received 68 patents and several internal awards for innovation. His career included responsibility for all aspects of combine design and development. Bruce was a member of the team receiving the 2013 ASABE Rainbird Engineering Concept of the Year Award and served three years as the Section's Scholarship Chair. Bruce's career accomplishments make him a most deserving recipient of the Member of the Year Award.

**<u>Recognition</u>** – The following Section members were recognized at the March Awards Meeting:

40 year members:	David Scheib David Skinner J. Donald Watt Michael Whitney	ר ח J
50 year members:	Eugene Beckman Bruce Warman Neil West	k S
50+ year members:	Larry Moore (51) Roger Curry (52) Thomas Hitzhusen (52) George Oelschlaeger (52) Harold Luth (53) Philip Kester (56) Page Bellinger (57) James Doering (58) Walter Roll (58) Bernie Romig (58)	N A A
60 year member:	Larry Gay	J. (2
60+ year members:	Francis Brinkmeyer (66) James Graham (66) Donald Hartwig (66)	



Dave Scheib Dave Skinner and Mike Whitney (40 year members)



Bruce Warman and Neil West (50 year members) and Larry Gay (60 year member)

Only the patent recipients who are ASABE Quad City Section members are listed below for patents granted between Feb. 1, 2016 and Jan. 31, 2017. These recipients are listed alphabetically by last names of the ASABE members on the patent.

James K. Adamson	Hanger Mount for a Reciprocating Sieve
Klaus E. Becker Snehalrao Jadhav	Asymmetrical Feed Beater for Single Rotor Separator
Michael L. Berggren	Adjustable Row Unit Deck Plate for a Header of an Agricultural Harvester
Aaron J. Bruns	Display Screen with Graphical User Interface
Aaron J. Bruns	Display Screen or Portion Thereof with Icon
Aaron J. Bruns Jeremiah K. Johnson (2 patents)	System and Method of Material Handling Using One or More Imaging Devices on the Transferring Vehicle to Control the Material Distribution into the Storage Portion of the Receiving Vehicle
Daniel Burke Ryan P. Mackin	Axle and Transmission Arrangement for an Agricultural Vehicle
Bruce A. Coers	Sidehill Compensation for a

William L. Cooksey Craig E. Murray	Removable Troughs for a Cleaning System of an Agricultural Harvester		Characteristics in an Agricultural Harvester
Orlin W. Johnson Craig E. Murray	Belt Drive Having a Speed Selection Shift Mechanism	Craig E. Murray	Actuation Linkage for Flexible Crop Residue Management
Ryan P. Mackin	Feederhouse Arrangement for Mounting a Header to a Combine	Craig E. Murray	Pivot Support Member for Agricultural Machine
Nathan A. Mariman	Seeding Machine with a Seed Delivery System	Craig E. Murray	Multi-purpose Spreader of an Agricultural Machine
Nathan A. Mariman	Planting Unit for a Seeding Machine Having Blocking	Craig E. Murray	System for Flexible Crop Residue Management
	Members to Control Hand-off of Seed from a Seed Meter to a Seed	James R. Peterson	Planter with Reversible Individual Meter Control
	Delivery System	Alan D. Sheidler	Power Management for Sugarcane Harvesters
Nathan A. Mariman Lee E. Zumdome	Transitional Blocking Member of Planting Unit to Control Hand-off of Seed from a Seed Meter to	Alan D. Sheidler	Power System with Heat Transfer Circuits
	a Seed Delivery System	Lee E. Zumdome	Vibrational Seed-Double Eliminator for a
Nathan A. Mariman Lee E. Zumdome	Seed-Double Eliminator for a Planting Unit		Planting Unit
Michael W. Mossman	Michael W. Mossman Finger Support for a Drum Conveyor	Lee E. Zumdome	Alignment System for a Blocking Member of a Planting Unit
Craig E. Murray Kevin S. Schwinn	System and Method of Controlling Airflow	Lee E. Zumdome	Seed-Double Eliminator for a Planting Unit



Patent recipients present at Awards Meeting: Lee Zumdome, Orlin Johnson, Mike Mossman, Aaron Bruns, Bruce Coers, Michael Berggren, Alan Sheidler, Snehalrao Jadhav and Jeremiah Johnson.

Our thanks to David Pearson of the Deere & Company Patent Department and Vannette Azarian

of the CNH Intellectual Property Department for their aid in compiling the above list of patent recipients. Service on an ASABE National Committee in 2016-2017:

John Andruch Aaron Barfels Scott Clark Stephen Corban Chance Corum Michael DeSpain Niels Dybro Richard Gast Andrew Greenlee Jason Healy Brianna Heim Elizabeth Hickman Kevin Hoehn Timothy Hunt L. John Koutsky David Lienemann David Mattes Michael Meschke	Glenn Pope Shannon Prantner Corwin Puryk John Reid Bailley Richardson Anne Ryerson Chris Schneider Martin Schramm Michael Senneff David Smith Lyle Stephens Timothy Stevens Nathan Turnis Travis Unterzuber Joel Werling Paul West Tim Wodrich Matt Wold
Michael Meschke Ronald Parkins Carol Plouffe	Matt Wold Grant Wonderlich

**Election Results** – At the Awards Meeting, the members unanimously elected the following candidates proposed by the Nominating Committee to serve for the 2017-2018 Quad City Section year:

Carol Plouffe – Chair (previously elected) James Gessel – Chair-Elect

Chance Corum – Past Chair (previously elected) Tanisha Locklear – Secretary Matt Wold – Treasurer Michael Berggren – Nominating Committee Candace Popp – Nominating Committee Brad Vogtsberger – Nominating Committee



Shown above are the 2016-17 Section officers present at the Awards Meeting: (left to right) Scott Clark (Past Chair, Membership and QCESC Liaison), Carol Plouffe (Chair-Elect), Chance Corum (Chair), Evan Bush (Nominating Committee), Matt Wold (Treasurer) and Brad Vogtsberger – (Nominating Committee). Not present was Tanisha Locklear (Secretary and Communications).



Continuing and newly elected Executive Committee members are Cody Freehill (Scholarships), Michael Berggren (Nominating Committee), Tyler Brammeier (Meeting Arrangements), Candace Popp (Nominating Committee) Dave Smith (Awards and Newsletter) and Bailley Richardson (Young Professionals). Not present were James Gessel (Chair-Elect), Eric Drobny (Continuing Education) and Mike Jendro (Supplier Coordinator).

Thanks to this year's Nominating Committee (Evan Bush and Brad Vogtsberger) for their work in identifying the candidates and our thanks to the new officers for their willingness to serve!

**Scholarship Recipients** – This year, the Quad City Section awarded two \$ 500 scholarships. Alex Brauman and Calli Sebok (both agricultural and biological engineering students at the University of Illinois) were chosen as the recipients and recognized at the Awards Meeting.



Alex Brauman

A native of Fairbury, Illinois, one of Alex's goals is to increase the efficiency and productivity of agricultural machinery.

Each submitted an essay (which follow) with Alex's first: "As an Agricultural and Biological Engineer with a minor in Business, my goals are to continue developing myself and obtain a management position in a company in the agricultural technology or equipment industries. In this position. I will support the continued development of technology to provide the agriculture sector with the best possible equipment at the best prices. A goal of mine is to advance agricultural technology and increase the efficiency and productivity of agricultural machinery. More efficient and productive machinery will benefit agriculture, the environment, and food production systems. Another goal of mine is to always continue my education whether formally, with a MBA or other professional certifications, or informally, with books and courses aimed at developing personal and professional capabilities. In addition to benefitting the company I work for, I plan to use my skills to benefit my local community by being involved in community organizations and projects as a volunteer and leader. My goals align with those of the American Society of Agricultural and Biological Engineers by focusing on applying my engineering knowledge in as broad a spectrum as possible to advance agricultural technology and systems. With skills and knowledge from the University of Illinois at Urbana-Champaign, one of the top business and engineering schools in the country, I will place myself in a position to maximize the application of engineering technologies and solutions to solve problems in the agricultural industry. Agricultural and Biological Engineers are an incredibly diverse group working over a wide range of industries. By continuing my professional development through organizations, professional seminars. and conferences I will gain the chance to interact with professionals from a wide variety of industries and promote the causes that the industry most cares about. My goals and studies will allow me to benefit my community, my employer, and the industry."



Calli Sebok

From Plainfield, Illinois, Calli is majoring in Biological Engineering with a concentration in Food and Bioprocess Engineering.

Here's Calli's essay: "Throughout my three years thus far as a student, I have learned an innumerable amount of items in relation to the engineering profession, and more specifically, the Agricultural and Biological Engineering profession. After being unsure for quite some time as to what I wanted to study in college, I was able to find a niche interest in the major.

Specifically, I am pursuing a degree under Biological Engineering, choosing to concentrate in Food and Bioprocess Engineering. With this education, I have had numerous industry experiences with both Ingredion Incorporated, working in their North American Quality department, and this upcoming summer, will be interning with Nestle USA as an Operations Management Trainee Intern. with various responsibilities. After completion of this experience, I hope to be able to further evaluate and see what aspect of industry interests me, and aligns with my personal and professional development goals.

The goals of the American Society of Agricultural and Biological Engineers are paralleled along with my own. The first of the goals for ASABE is to "raise the prominence of the agricultural and biological engineering profession globally". I am involved in two of the major organizations in my department, both Alpha Epsilon, an honors society for Agricultural and Biological Engineering students, as well as the Illinois chapter of ASABE. Within this, the organizations work to improve the visibility and involvement of our department from within and outside. As the Department of Agricultural and Biological Engineering is much smaller in comparison to other engineering departments and majors on campus, I continuously interact with a diverse population of others outside my department about my own experiences and the opportunities I have received.

Another one of the goals is to "position ASABE as the preferred engineering society for technical professionals in agricultural, food, and biological systems." Being a member of ASABE has brought along many benefits, one of the key ones being the opportunities professional development. for networking, and increased involvement in departmental activities. Also, under my position as an Engineering Learning Assistant for freshman engineering students who are still undecided as to what to major in, I advocate strongly for involvement in organizations on campus. I refer to and exemplify my experiences in the student chapter of ASABE at Illinois in addition to Alpha Epsilon and Alpha Omega Epsilon.

Overall, I am very passionate about pursuing a career in industry in relation to food processing and manufacturing, and using my knowledge as a Biological/Food Engineer to do so. Agricultural and Biological Engineering has the opportunity to be applied in many different disciplines and areas of industry, and I look forward to being able to achieve my goals and promote the goals of the American Society of Agricultural and Biological Engineers."

#### **Closing Notes**

The Section's web site address has changed to <u>http://www.asabe.qcesc.org/</u>. The Section can now do its own updating of this site which should provide more timely communications to members. Our thanks to our Section Secretary, Tanisha Locklear, for rapidly coming up to speed on the web software involved and making several updates to the site.



The ASABE Quad City Section received the 2017 Society of the Year Award at the QCESC's 55<sup>th</sup> Annual National Engineers Week Banquet held on February 23rd. The Section also received this recognition in 2005. The photo shows Chair-Elect Carol Plouffe, Chair Chance Corum and Past Chair Scott Clark (our QCESC representative) with the award plaque.

2015 Quad City Section Scholarship recipient <u>Anna</u> <u>Kucera</u> was recognized as a New Face in Engineering in conjunction with national Engineers Week in February.

Section Member Mark Johnston's antique John Deere machinery collection is featured in the <u>current</u> issue of the John Deere Journal.

Prior to the Awards Meeting, the Section had a balance of \$ 5,220.17 in its checking account and a certificate of deposit valued at \$ 2,380.05.

<u>Upcoming Events</u> - Check the Section's web site at <u>http://www.asabe.qcesc.org/</u> for the most recent information on the Section and the following events:

#### June 1-4, 2017

<u>ASABE 1/4 Scale Design Competition</u>, Peoria, Illinois

#### July 16-19, 2017

ASABE <u>Annual International Meeting</u>, Spokane, Washington

## ASABE Quad City Section Officers 2017-2018

## August 24-27, 2017

Half Century of Progress Farm Show, Rantoul, Illinois – see http://www.halfcenturyofprogress.com/

## August 29-31, 2017

Farm Progress Show, Decatur, Illinois. See <u>http://farmprogressshow.com/</u>

# Aug. 31 - Sept. 4, 2017

Midwest Old Threshers Reunion, Mt. Pleasant, Iowa. See <u>http://www.oldthreshers.org/</u>

# September 15-17, 2017

Antique Engine & Tractor Working Farm Show, rural Geneseo, Illinois. See <u>http://ae-</u> <u>ta.com/events/jb-icon-calendar-jb-icon-calendar-</u> <u>56th-annual-antique-tractor-show</u>

# October 24, 2017 (tentative)

Quad City Section Fall Meeting

## January 14-16, 2018

Quad City Farm Equipment Show, QCCA ExpoCenter,RockIsland.Seehttp://www.qccaexpocenter.com/farm-show-event.html

## January 16, 2018 (tentative) Quad City Section Winter Meeting

# February 6, 2018 (tentative)

Quad City Section Continuing Education Seminar

# March 21-24, 2018

Gathering of the Green, Davenport. See <u>http://gatheringofthegreen.com/</u>

March 27, 2018 (tentative) Quad City Section Awards Meeting

# April 10, 2018 (tentative) Quad City Section Spring Tour

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#### Young Professionals:

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### **Social Hour Sponsors**

The following sponsors have committed to providing the beverages for the social hours at our meetings this year. Look for additions to this list in the next newsletter. Our thanks to Mike Jendro of Federal Mogul Deva for his work in organizing this much appreciated support activity.



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