ASABE Quad City Section Newsletter

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

No. 89 Spring 2025

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From the Chair – Hello fellow Quad City ASABE members! I want to thank everyone who joined us for the 2025 Spring Section Meeting. It was great to see so many of you there! I really enjoyed hearing from our technical speakers, Mobile Track Solutions and AMOS Power. Having them present in person added so much to the experience and made the discussions feel more engaging and connected.

I also want to give a special thanks to the Executive Committee for their efforts in making everything run smoothly, especially the awards program. It's always a team effort, and I appreciate the work you all put into it.

Since our Spring Meeting, I've been excited to continue serving as your Chair for the 2025-2026 term. I'm really looking forward to another year of working together, building connections, and expanding opportunities to interact and network as a group. I always welcome ideas for speaker topics or innovative projects, so please don't hesitate to share your thoughts—I'd love to hear from you!

We are still looking for a Chair-Elect for 2025-2026 to step into the role after me, and I encourage anyone interested to reach out or consider volunteering. Looking ahead, I also want to highlight a few key events on the horizon: the Continuing Education Seminar in April, the tour scheduled for May, and the ASABE ¼ Scale Competition happening the last weekend of May. These are all great opportunities to learn, engage, and get involved, and I strongly encourage everyone to participate if you can.

It has been a privilege to serve as Chair, and I'm excited about what this next year holds for our Section. Thank you for your ongoing support, and let's make it another successful year! – Matt Haas, 2024-2025 Section Chair

Spring Meeting Review The Spring Meeting was held on the evening of March 18th at the Western Illinois University Quad City campus in Moline with 36 present in person and 5 attending virtually.

The technical sessions began with a presentation by Jacob Bickett, Engineering Manager for Mobile Track Solutions of Elkader, Iowa, on the subject "Industrial Tractor Design, The Lost Art of the Specialized Market". Mobile Track Solutions offers a variety of scraper models along with wheeled and rubber tracked construction grade tractors, disks and rollerblades sold through Caterpillar dealers. The tractors use a 630 horsespower Cat engine and a Cat 16 speed power shift transmission. Their main customers are in the mass soil excavation business although two are operating in Antarctca maintaining airplane runways..

The second technical session presentation was made by Tom Boe, CEO and President of AMOS Power on the subject of a "Fully Electric Tractor Optimized for Autonomous Operation". Being fully autonomous, the tracked tractors have no seat or cab. Eliminating a transmission and differential,

the tractors use a 90 horsepower motor to power each track with a 50 horsepower motor to power the pto. With its emphasis on engine emission reduction, California has been the main market so far with an emphasis on tasks such as mowing and spraying especially in vineyards.

As part of the after-dinner program, the Deere Seeding team members associated with the development of the C series air carts were recognized as the recipients of the 2025 Quad City Section Outstanding Enginnering Achievement Award. The C850 trailing cart shown above is the largest of the C series with an 850 bushel tank.

Seeding engineers Doug Graham, Ean Bush and Brendan Kuhns (shown above) described the development of the the C series which includes six models with tanks ranging from 350 to 850 bushels with the smallest five offering both leading and trailing configurations. The carts feature corrosion resistant AccuRate™ stainless steel, electronically controlled meters, faster calibration with the EasyCal™ system and a tank scale providing feedback on how much seed is left in the tank. The John Deere ActiveCal™ in-cab calibration system is also available on all the carts.

Recognition – The Spring Meeting meeting also included recognition of several Section members including the recipients of the Section's three local awards. Our thanks to Craig Murray and Travis Ohms for taking the award presentation photos.

Matt Haas (right) receiving the Young Member of the Year Award from Past Chair Travis Ohms.

Section Chair Matthew Haas is the ASABE Quad City Section's 2025 Young Member of the Year. Matt has been with CNH since 2023, where he serves as a Design Engineer for Midrange Rotary Combine Functional Product Development. He graduated in 2023 with a Bachelor's degree in Agricultural Engineering from Iowa State University.

During his studies, Matt interned at Vermeer Corporation from 2021 to 2023, focusing on product development of Mini Skid Steers and their associated attachments. He also held leadership roles in the Cyclone Power Pullers (Iowa State University 1/4 Scale Tractor Team), serving as X-Team Leader (2020-2021), Design Lead (2021-2022), and A-Team Leader (2022-2023).

Currently, Matt is the ASABE Quad City Section Chair (2024-2025) and an Engineer in Training (EIT) working toward his Professional Engineer (PE) license. He has three patents pending related to the product development of combine harvesting systems and associated attachments.

Involved in his family's farming operation, Matt is renting additional land with plans to purchase his first farm this year. He utilizes sustainable farming methods, particularly no-till and cover crops.

Matt has done an outstanding job as the Section's Chair this past year especially in dealing with three new meeting locations making him very deserving of this recognition.

Section Past Chair Craig Murray (left) receiving the Member of the Year Award from Section Chair Matt Haas.

Section Past Chair Craig Murray is the ASABE Quad City Section's 2025 Member of the Year. Craig was born in Roblin, Manitoba Canada, on a small mixed grain and cattle farm. From an early age Craig had a desire to be involved in agriculture and farming and particularly agricultural equipment. Many of his fondest farm memories involve being with his father and working with the 1970 John Deere 3020 tractor in the feedlot, combining in the fall with their 1979 1460 International Harvester combine and many hours in the 1980 Case 2390 tractor in the fields.

Craig graduated with a BS in Agricultural Engineering in 1993 from the University of Manitoba in Winnipeg, Manitoba. During the summer between his junior and senior year, Craig interned with an agricultural equipment manufacturer, Western Combine Corporation, installing grain handling equipment in Russia and Ukraine. This led to a full-time position after graduation in Guelph, Ontario Canada starting in 1993 with the same company. Craig worked as a Project Specialist, developing turnkey grain handling facilities for overseas customers and also supporting the Western Combine stripper header attachment, which was a rival to the Shelbourne Reynolds header. At the time Western Combine owned and manufactured the rotary combine

retailed under agreement by AGCO Corporation in North America and Europe as Massey Ferguson and under the Western Combine name in most other countries of the world.

In 1996, Western Combine was acquired by AGCO Corporation and the following year Craig relocated to the USA supporting header engineering at the AGCO Independence, Missouri facility where both Gleaner and Massey Ferguson combines were being produced. As a Project Engineer working primarily on headers, Craig spent his time between Independence where the auger table headers were built and the Hesston facility in Hesston, Kansas where several other header platforms where built, including the stripper header.

In 1999, Craig received his green card allowing him flexibility in employment and later that year he decided to take a job as a Senior Design Engineer in East Moline, Illinois with Case Corporation. Craig was the last engineer hired in under Case Corp as the company immediately merged with New Holland and restructured under the CNH corporate name. For 10 years Craig supported current product of Case IH Axial Flow combines at both the East Moline and Grand Island, Nebraska factories, Brazil production at both the Curitiba and Sorocaba factories and production at the Harbin China factory. Whilst doing this, Craig has always been involved in new product development projects, including the Case IH AFX rotor and Cross-Flow Cleaning System designs to name a few. Some of the most rewarding experiences involved field test validation of threshing and cleaning system designs with the engineering loss collector/processor equipment in the USA/Brazil and supporting customer evaluation programs on the custom cutter run across the USA.

Craig has served in several engineering roles for Case IH Midrange combines, such as the Functional Engineering Manager from 2010-2017, the Current Product Manager from 2017-2018 and the Chief Engineer from 2018 to present. During his time with CNH, Craig has received over fifty patents. As a 20+ year member of ASABE, he continues to stay abreast of industry trends, attending several ASABE events each year. Craig served as the Quad City Section Chair-Elect (2020 – 2021), Chair (2021-2022 and again 2022-2023), then Past Chair (2023-2024).

Outside of work, Craig's passions include doting over his wife, playing beer-league hockey 2-3 times a week, tinkering with motorcycles and house projects, landscaping, and entertaining his dog. Craig has two married daughters living in Ontario Canada and three lively young grandsons.

Craig has been an outstanding supporter of the Section as exemplified by his willingness to serve a second year as Section Chair.

The following Section members were recognized at the Spring Meeting for their years of ASABE membership.

25 year member:	Craig Thomas
40 year member:	James Malm
50+ year members:	Philip Alexander (51) David Gustafson (51) L. John Koutsky (51) James Miller (51) Thomas Haar (52) Lyle Stephens (54) Orlin Johnson (56) Gordon Salley (56) David Smith (56) Bruce Warman (58) Larry Moore (59)
60 year members:	Roger Curry Thomas Hitzhusen George Oelschlaeger
60+ year members:	Harold Luth (61) Walter Roll (66) Bernard Romig (66)

Patent recipients present at the Spring Meeting: left to right: Matthew Wold, Alan Sheidler, Travis Ohms, Craig Murray, Cary Hubner and Doug Graham

Only the patent recipients who are ASABE Quad City Section members are listed below for patents granted between Feb. 1, 2024 and Jan. 31, 2025. These recipients are listed alphabetically by last names of the Quad City Section members on the patent.

Stephen R. Corban Nathan R. Vandike	Predictive Map Generation and Control System for an Agricultural Work Machine
Stephen R. Corban (4 Design Patents)	Display Screen with an Animated Graphical User Interface
Stephen R. Corban (2 Design Patents)	Display Screen or Portion Thereof with an Icon
Stephen R. Corban	Kernel-level Grain Monitoring Systems for Combine Harvesters
W. Douglas Graham	Pre-charging Technique for Dispersing Product from Tractor Tool Prior to Reaching Plant Site
W. Douglas Graham	Measurement of Seeder Cart Tank Contents
W. Douglas Graham	Self-locking Hitch Assembly
W. Douglas Graham	Seeding System with Vertical Array of Nozzles
Cary S. Hubner Grant J. Wonderlich	Systems and Methods for Selective Material Placement
Cary S. Hubner Grant J. Wonderlich	Agricultural Seed Detection and Tracking System
Cary S. Hubner	Precision Agricultural Seed Delivery System
Cary S. Hubner	Obtaining and Augmenting Agricultural Data and Generating an Augmented Display Showing Anomalies
Cary S. Hubner	Planting Control for Grouped Seed Placement
Cary S. Hubner	Seed Meter Disk and Methods of Using the Same
Nathan A. Mariman James R. Peterson Grant J. Wonderlich	Ground Following Optimization with Position Control Systems and Methods
Nathan A. Mariman James R. Peterson Grant J. Wonderlich	Ground Following Optimization with Downforce Control Systems and Methods

Mark L. Mattson	Threshing Spine
Paul J. McCredie	Harvester Vehicle, Toy and/or Replica Thereof
Paul J. McCredie	Position Detectors for Steering Systems of Agricultural Header Treansport Systems
Michael W. Mossman	Reel Assembly with Removable Tines and Method of Use
Michael W. Mossman	Integrated Transport Coupling System
Michael W. Mossman	Reel Finger
Craig E. Murray Travis Ohms	Removable Insert for a Threshing Rotor Cage
Corwin M. Puryk Nathan R. Vandike	Machine Control Using a Predictive Map (2 patents)
Alan D. Sheidler	Intelligent Power Allocation Systems Onboard Hybrid Combines and Associated Methods
Nathan R. Vandike Matthew T. Wold Bradley K. Yanke	Map Generation and Control System
Nathan R. Vandike Matthew T. Wold Bradley K. Yanke	Agricultural Header Control
Nathan R. Vandike Matthew T. Wold	Predictive Map Generation and Control System
Nathan R. Vandike Matthew T. Wold	Map Generation and Control System
Nathan R. Vandike Matthew T. Wold	Yield Map Generation and Control System
Nathan R. Vandike	Machine Control Using a Predictive Map (3 patents)
Nathan R. Vandike	Predictive Map Generation And Control
Nathan R. Vandike	Crop State Map Generation And Control system
Nathan R. Vandike	Predictive Biomass Map Generation and Control
Nathan R. Vandike	Predictive Map Generation Based on Seeding Characteristics and Control
Nathan R. Vandike	Crop Moisture Map Generation and Control System
Nathan R. Vandike	Residue Quality Assessment And Performance System for a Harvester
Nathan R. Vandike	Predictive Machine Characteristic Map Generation and Control System
Nathan R. Vandike	Machine Control Using a Map with Regime Zones
Nathan R. Vandike	Systems and Methods for Predicting Material Dynamics
Nathan R. Vandike	Predictive Environmental Characteristic Map Generation and Control System
Nathan R. Vandike	Predictive Nutrient Map and Control
Nathan R. Vandike	Predictive Weed Map Generation and Control System
Nathan R. Vandike	Crop Constituent Map Generation and Control System

Nathan R. Vandike	Predictive Map Generation And Control Based on Soil Properties
Nathan R. Vandike	Predictive Speed Map Generation and Control System
Nathan R. Vandike	Predictive Biomass Map Generation and Control
Grant J. Wonderlich	Implement Having Weight Transfer System and Method of Operating the Same
Grant J. Wonderlich	Sensing and Control of Liquid Application Using An Agricultural Machine
Bryan R. Yanke	Agricultural Header Reel Position Control Based on Header Wing Position
Bryan R. Yanke	Suspension Compliance to Reduce Frame Loading

Our thanks to Amelia Frank of the CNH Intellectual Property Department and Carolyn McKay of the Deere & Company Intellectual Property Operations Department for their aid in compiling the above list of patent recipients.

The Section's Past Chairs were also recognized at the Spring Meeting. Front row: Lyle Stephens (2001-02), Eric Allen (2020-21), Scott Clark (2015-16) and Matt Haas (2024-25). Back row: Tom Hitzhusen (1981-82), George Oelschlaeger (1977-78), Tom Haar (1990-91), Rusty Unterzuber (1987-88), Travis Ohms (2023-2024) and Craig Murray (2021-22 and 2022-23)

2025-2026 Section Officers

The following Section officers for 2025-2026 were approved by the members present at the Spring Meeting:

Matthew Haas – Chair
open position – Chair-Elect
Travis Ohms – Past Chair
Ashley Kruse – Secretary
Terry Warner – Treasurer
Jeff Bennett – Nominating Committee
Carol Plouffe – Nominating Committee
Niels Dybro – Nominating Committee

The Section had no Chair-Elect for the 2024-25 year so the above officer listing has Matthew Haas serving a second year as Section Chair. Our thanks to Matt for his willingness to take on the Chair position a second year!

The Chair-Elect position is still open and is a three year progression: in year one, serve as Chair-Elect in mainly a learning role to learn the position of Chair with responsibility for the Section's participation in the QCESC trebuchet competition. In year two, serve as the Section's Chair working with the other members of the Executive Committee to support Section activities with an emphasis on securing meeting speakers. In year three, transition to Past Chair serving as the Section's liaison to the Quad City Engineering and Science Council while also acting as a mentor to the Chair.

Note the Section By-Laws were recently changed to permit a Past Chair to again serve as Chair-Elect. Members willing to serve as Chair-Elect for the coming year should contact Jeff Bennett at jeffrey.bennett@cnhind.com. The Executive Committee acts as a team so support is always available for the Chair position.

Scholarship Recipient – For several years, the Quad City Section offered two scholarships for students interested in pursuing an agricultural engineering related degree. Although the scholarships were open to local high school students, the great majority of the applicants and recipients were college students from Midwest universities.

Locally the Quad City Engineering and Science Council (QCESC) operates a scholarship program open only to local high school students. The success of this program with local students led to the decision to offer a single $ 1,000 Quad City Section scholarship for 2018 through the QCESC program. A similar scholarship has been awarded since then with this year's $ 1,500 scholarship going to Carter Cox.

Carter Cox receives the Section's 2025 Scholarship from QCESC (Quad City Engineering and Science Council) Scholarship Chair Tom Hein at the annual QCESC STEM Celebration on February 20.

Carter wrote the following on his scholarship application: "Carter is a senior at Pleasant Valley High School where I have a weighted GPA of 4.31 and an unweighted of 3.98. I have been in many honors and AP classes in high school, as well as being dual-enrolled in Scott Community College. I was also accepted into the National Honor Society. I participated in high school soccer for my first two years where I earned a varsity letter, and now I play tennis for the high school. I enjoy playing sports with my friends and love to stay active. If I'm not playing sports or doing school work, you will usually find me playing video games or watching sports as those are some of my favorite things to do in my free time. My family and I love to attend Iowa State football games and we try to go to as many as we can every year. Apart from all of that, I also spend time during the summer volunteering at World Relief where I get to teach refugee children basic English and other skills. After high school, I will be attending Iowa State University where I plan to get my degree in Agricultural Engineering. I hope to use my degree in Agricultural Engineering to positively impact this aspect of society by developing new products to help crop yields and food sustainability."

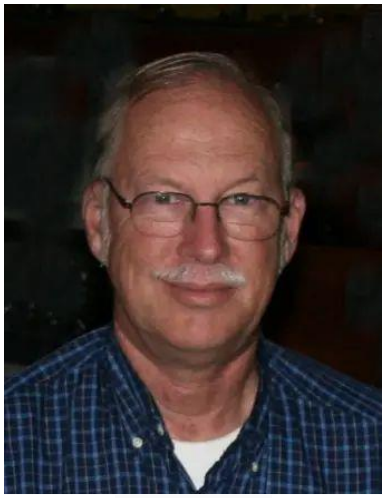
Carter submitted the following essay on his career goals: "A key reason why I would like to obtain a degree in STEM is because I love science and math.

Math has been a subject that I have always felt I understood better than most other subjects. This has allowed me to enjoy math and want to pursue a degree involving aspects of it. As for science, ever since I was in elementary school, I have always enjoyed learning about science and found it fascinating. I think a lot of this love for science can be credited to the teachers I have had over my educational path. I have never had a science teacher who seemed uninterested in what they teach. They have always been enthusiastic and knowledgeable, eager to share this knowledge. The energy from their love for science has left an impact on me. I enjoy all of my science classes and completing labs because of this and it inspired me to want to pursue a career in the STEM path. One specific topic I have enjoyed a lot is biology, which had a key influence on my decision to pursue a major in Agricultural Engineering. Just recently I was in a Microbiology class where I learned about BT crops. These are crops that are genetically modified to allow for protection against the environment for better crop yields. This intrigued me greatly as I was able to see the power of science and how big of an impact it can have on some of society's greatest areas. I believe that my love for biology will allow me to accomplish great things in this major and career path in the future. I have goals to be able to positively impact the agricultural world. For me, this means being able to develop and innovate new methods, products, and technology for farmers to use to help crop yields and food sustainability. Agriculture and farming are some of the most important parts of society to all people. It provides the food we eat as well as certain products we use daily. This is why I want to pursue a career in Agricultural Engineering and have goals to help further advance this aspect of society. For me to be able to complete these goals, however, I first need a degree in STEM to gain the knowledge necessary to better set up my future. This is why this scholarship is very important to me. It will be a great help in kicking off my future career path in STEM and allow me to be able to gain knowledge to chase my goals and hopefully leave an impact on the Agricultural world."

Closing Notes

66 year member Bernie Romig

66 year ASABE member Bernard (Bernie) Romig passed away on March 20th at age 88. Bernie grew up on a farm in western Iowa. He received his B.S. in agricultural engineering from Iowa State University in 1959 followed by M.S. (1964) and Ph.D. (1967) degrees in agricultural engineering from Cornell University. In 1966, he joined the Engineering Research Department of Deere & Company in Moline, Illinois which later became the Technical Center and eventually the John Deere Moline Technology Innovation Center where he retired as a Principal Engineer after over 51 years of service in 2017. He was named a John Deere Fellow in 2016 for his expertise in motion dynamics and vehicle electrification and technology solutions. Bernie received 20 U.S. patents during his career. Along with Jack Wiley, he received the 2008 Outstanding Engineering Achievement Award from the Quad City Section for their work on tractor power hop and was the 2014 Quad City Engineering and Science Council's Senior Engineer of the Year.



Fred Nelson

Former Quad City Section Member Frederick (Fred) Nelson, age 76, of Ferryville, Wisconsin and formerly of Des Moines, Iowa, passed away on March 28th. Born in Sturgeon Bay, Wisconsin,. Fred attended the University of Wisconsin at Madison where he received B.S., M.S. and Ph.D. degrees in agricultural engineering. Fred was employed at John Deere for 40 years, making significant contributions in electronics and software design for combines, tractors and other Deere equipment. From 1993 until 2020 he played a pivotal role in the development of Deere's GPS receiver and many subsequent technologies that form the foundation of precision farming today. A distinguished inventor, he held 38 U.S. patents and 215 patents worldwide. Fred retired with the title of Senior Principal Engineer and was named a John Deere Fellow. While at the John Deere Harvester Works, Fred received the Section's 1988 Outstanding Engineering Achievement Award for his development of a computerized test laboratory.

As of the Spring Meeting on March 18th, the Section had $ 6,826.34 in its checking account and a $ 10,425 certificate of deposit.

Upcoming Events - Check the Section's web site and public Facebook page and private Facebook group for the most recent information on the Section and the following events:

April 7, 2025
Quad City Section Continuing Education Seminar

April 11, 2025
Section support of the QCESC Trebuchet Egg Throwing Contest

May 13, 2025
Quad City Section Tour of John Deere Pavilion at 3 pm followed by dinner at the River House in Moline

May 29-June 1, 2025
International ¼ Scale Tractor Student Design Competition, Expo Gardens Fairgrounds, Peoria, Illinois

July 13-16, 2025
CSBE-ASABE Annual International Meeting, Toronto, Canada

July 25-27, 2025
Bos Brothers Summer Harvest Show**,** 8105 Springhill Road, Erie, Illinois

Aug. 26-28, 2025
Farm Progress Show, Decatur, Illinois. See http://farmprogressshow.com/

Aug. 28 – Sept. 1, 2025
Midwest Old Threshers Reunion, Mt. Pleasant, Iowa. See http://www.oldthreshers.org/

Sept. 12-14, 2025
Antique Engine & Tractor Association Working Farm Show, rural Joslin, Illinois.

October 28, 2025 (tentative)
Quad City Section Fall Meeting

January 18-20, 2026
Quad City Farm Equipment Show, QCCA Expo Center, Rock Island. See https://www.qccaexpocenter.com/events

January 27, 2026 (tentative)
Quad City Section Winter Meeting

Spring 2026 (tentative)
Quad City Section Continuing Education Seminar

March 17, 2026 (tentative)
Quad City Section Spring Meeting

2024-2025 Executive Committee Members: Front row: Cody Freehill (Scholarship), Landon Fricker (Young Professionals), Megan Meuller (Meeting Arrangements) and Matt Haas (Chair).. Back row: Terry Warner (Treasurer), Travis Ohms (Past Chair), Eric Allen (Tours) and Scott Clark (Continuing Education). Not present: David Smith (Awards and Newsletter), Ashley Kruse (Secretary, Communications and Social Media), Jeff Bennett, Niels Dybro and Carol Plouffe (Nominating Committee).

ASABE Quad City Section Executive Committee 2025-2026

Elected Officers

Chair:
Matthew Haas
CNH Industrial
matthew.haas@cnhind.com

Chair-Elect:
Open position

Past Chair:
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Secretary:
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