



Agricultural Machinery Conference
c/o Chad Elmore
OEM Off-Highway
1233 Janesville Ave.
Fort Atkinson, WI 53538

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2010
**AGRICULTURAL
MACHINERY
CONFERENCE**

May 3rd to 5th, 2010

U.S. Cellular
CENTER

Cedar Rapids, Iowa
www.amc-online.org

AGRICULTURAL
MACHINERY
CONFERENCE

25 YEARS OF
ENGINEERING
ADVANCEMENT

Sponsored by the Mississippi Valley SAE,
Quad Cities ASABE and Iowa ASABE sections.

Celebrating 25 Years of Engineering Advancement

Regardless of what industry an engineer works in or what continent he or she is located on, the role of an engineer is to be a problem solver. As we look back through the 25 years the Agricultural Machinery Conference has been held, we have seen the responsibility and tasks of an engineer evolve right alongside the advancement of technology.

Terms such as Tier 4, CAN, GPS, sensors, etc. have become a natural part of an engineer's vocabulary as they continue to



Jacob Bolson
General Chair
25th Annual AMC
Hagie Mfg. Co.
Clarion, IA

become the problem solvers for these new technologies. The knowledge gained to solve these engineering challenges comes directly from events such as the Ag Machinery Conference as it builds on the experience, knowledge and problem solving abilities of engineers.

The 2010 AMC will be no exception, with a full lineup of cutting-edge technical sessions and continuing education seminars on simulation tools, hydraulics, and control systems, providing an opportunity to deepen ones' education on these subjects.

New for 2010, Ag Machinery Conference will have breakfast keynote speakers on the exhibit floor on Tuesday and Wednesday morning. Lance Lefebure of Lefebure Family Farms and Dave Dusanek of Marcydu Inc. will discuss how the products developed by the engineering community have affected their respective farming operations in Eastern Iowa.

Our luncheon speakers on Tuesday and Wednesday will feature Jeff C. Schick, director of agricultural and forestry at Eaton Corp. and Bob Recker, retired manager of Global Advanced Tractor Technology at John Deere, and CEO of Cedar Valley Innovation. Both have vast experience in the industry and will provide insight on the future of engineering for the ag market.

Cedar Rapid's U.S. Cellular Center will be filled with supplier exhibits displaying the latest in products and technologies available to the engineering community, developed to further advance the farm equipment industry. A full machinery exhibit will also be on display, providing a firsthand look at the latest in ag machines and new powertrain technologies such as Tier 4 diesel engines.

Missing the 2010 Ag Machinery Conference would mean missing out on valuable continuing education opportunities, technical session topics, keynote speakers, and supplier interaction opportunities — all required to solve the engineering problems of the future.

Join us in Cedar Rapids, Iowa, May 3-5, as we celebrate 25 years of engineering advancement!

LOCATION

Crowne Plaza Five Seasons Hotel and U.S. Cellular Center, at 350 1st Avenue NE, in downtown Cedar Rapids, Iowa.

Cedar Rapids, located in the heartland of United States agriculture, is easily accessible from Interstate 380. Major airlines serve the Eastern Iowa Airport in Cedar Rapids. Complimentary limo service from the airport is available and ramp parking is adjacent to the hotel.

HOTEL ACCOMMODATIONS

Please call the Crowne Plaza Five Seasons Hotel at 319-363-8161 for room reservations. **Room reservations should be made by April 18, 2010.** You must state that you are attending the AMC to obtain the AMC discounted conference rate of \$89.00 single / \$99.00 double. Please have your hotel confirmation number when checking in.

REGISTRATION

Use the registration form provided in this brochure to register by phone or fax. The conference registration deadline is April 24, 2010. Late registration is available at the conference for an additional fee. However, availability of meals cannot be guaranteed for these late registrations. You may also register online at www.amc-online.org

The AMC registration desk is located on the exhibit floor. All conference attendees must check in at the registration desk and obtain an AMC name badge. The registration desk opens at 7:30 a.m. each day.

ADDITIONAL INFORMATION

For additional information or questions, please call Jacob Bolson at 515-532-2861, ext. 6318.

Information in this brochure may be subject to change. Any changes to the conference or programs will be posted on our website: www.amc-online.org.

Messages for attendees may be placed by phoning the Crowne Plaza Five Seasons Hotel at 319-363-8161. Messages will be posted at the AMC registration desk.

Check out the Cedar Rapids Downtown District website for local information:
www.downtowncr.org

CONTINUING EDUCATION SEMINARS

Monday, May 3

Registration deadline: April 24, 2010

Continuing Education Units are offered for all sessions

8:00 AM-12 NOON Seminars

I. J1939 Protocol and Introduction to ISO11783

Aaron Galbraith, Vector CANtech Inc.

- CAN protocol overview
- J1939 protocol overview
- J1939 physical layer
- J1939 data link layer
- J1939 names and addressing
- J1939 parameters

CANCELLED H. Product development through computer simulation

Dr. Ben Chouchaoui, Windsor Industrial Development Laboratory Inc.

Noon-1:00 PM (lunch provided)

1:00 PM-5:00 PM Seminars

I. J1939 Protocol and Introduction to ISO11783 (part 2)

Aaron Galbraith, Vector CANtech Inc.

- J1939 transport layer
- J1939 diagnostics
- Fundamental terms from ISO11783
- Overview of ISO11783 components
- Differences/commonality between J1939 and ISO11783

IV. Hose Development and Applications - FACS - High Value Farm and Ag Products, A/C changes on the Horizon for the Globe and Sustainability for the Future

Doris Showalter, Eaton Corp.

- Products for wettable powders and hydrocarbon based chemicals
- Products for NH3 use
- Bundles
- Fitting technology
- A/C: global change on horizon: Legal ease of a global refrigerant change, New products, oils, charge ports, charging equipment, and launch timelines
- Sustainability
- Biodiesel: Will it last?
- CARB: new developments on the horizon
- New fuel fitting opportunities

*We reserve the right to change or cancel classes
in the event of insufficient registration.*

Please see www.amc-online.org for updates after publication.

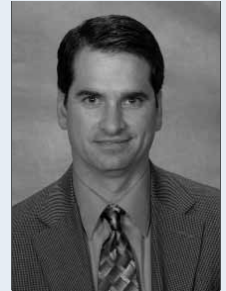
Special Keynote Luncheon Speakers

Tuesday, May 4

Jeffrey C. Schick

**Director, Global Agriculture
and Forestry, Eaton Corp.**

*"Thrive for another 25:
Megatrends planting the
need for innovation now...
Up to the challenge?"*



Wednesday, May 5

Bob Recker
Founder/Owner
Cedar Valley Innovation LLC

*"25 Years of Progress:
Here's to Passion that
Powers us Forward!"*



New this year! Morning Keynote Speakers

Show floor, Tuesday and Wednesday, 8 to 8:30 am

Lance Lefebure
Lefebure Family Farms
Cedar Rapids, IA

*"Lefebure Farms: How we're using
technology on the farm"*



Dave Dusanek
Marcydu, Inc.
Monticello, IA

"Capitalizing on Agricultural Evolution"

Free breakfast! 7:30 to 9 am, show floor

7:30 AM REGISTRATION *coffee available in session rooms*

8-8:30 AM MORNING SPEAKER show floor **Lance Lefebure**
Lefebure Family Farms
Cedar Rapids, IA

"Lefebure Farms: How we're using technology on the farm"

9:00-11:00 AM

SESSION I
New Products: Large Manufacturers
Randy Rush, John Deere

8R Series Tractor
Roger Hamilton, John Deere

8000 Series Sugar Cane Harvester
Billy Lawson, CNH

Telemetry
Chris O'Neill, Agco

8N Boomer Tractor
Cory Spaetti, CNH

SESSION II
Construction Equipment in Ag Applications
Joel Werling, John Deere

John Deere Skid Steer Loaders
Andy Kahler, John Deere

Telescopic Handlers
TBD, JCB

TBA
Please refer to www.amc-online.org for the latest updates.

SESSION III
Production and Handling of Biomass
Eric Cullen, Cummins Central Power

Cob Harvesters
Ty Stukenholtz, CERES Agriculture

Designing Equipment for the Biomass Market
Jeff Fleenor, Fleenor Mfg.

CCX770 Corn Cob Harvester
Lucas Graham, Vermeer

Bale Direct System and Assist Drives for Biomass
Darren Foster and Graham Shields, Tuthill Drive Systems

NOON lunch **KEYNOTE SPEAKER**

Jeffrey C. Schick, Director, Global Agriculture and Forestry, Eaton Corp.

"Thrive for another 25: Megatrends planting the need for innovation now ... Up to the challenge?"

2:30 PM-4:30 PM

SESSION I
New Products: Components
Randy Rush, John Deere

H1 Automotive Control
Joe Maher, Sauer-Danfoss

New Technologies
Bryan Roiger, Bucher Hydraulics

Electrohydraulic Actuators: The Power Alternative
Phil Leise, Parker Hannifin Oildyne Division

TBA
Lee Alberto, GS Engineering

SESSION II
Machine and Soil Interface
Joel Werling, John Deere

Ag Tire Design & Application 101
Ken Brodbeck, Firestone Agricultural Tire Div.

Reducing Draft Forces and Fuel Requirements of In-Row Subsoiling
Randy Raper, ARS National Soil Dynamics Lab

Using CAN bus Data to Improve Soil Compaction Management
Nicolas Dubuc, Jr., McGill University

TBA
Please refer to www.amc-online.org for the latest updates.

SESSION III
Material Technology
Eric Cullen, Cummins Central Power

Magnetorestrictive Materials
Jon Snodgrass, Etrema Products, Inc

Fastening Solutions for Bolted Joints
Roger Viel, Nord-Lock

Toolless Engineered Composite: Challenges, Benefits and Solutions
Terry Kieffer, Plastics Unlimited

Plastics Capabilities for Ag Equipment
Carsten Erkel, Elkamet Inc.

NEW THIS YEAR: evening social! 4:30 to 6 pm Tuesday, show floor

SUPPLIER EXHIBITS & EQUIPMENT DISPLAYS
Exhibits open from 8:00 AM to 5:00 PM
Breakfast (7:30-9 AM) and refreshments available on Exhibit Floor

7:30 AM REGISTRATION *coffee available in session rooms*

8-8:30 AM MORNING SPEAKER show floor **Dave Dusanek**
 Marcydu, Inc.
 Monticello, IA

"Capitalizing on Agricultural Evolution"

9:00-11:00 AM

SESSION I
CAD: 25 Years of Progress: Looking Forward
Randy Rush, John Deere

VSA (Variation Simulation Analysis) Modeling for Design in Robotic Automation
Harlon Neuman, Genesis Systems

Pro-E 3D Surface Modeling
Tom Boe and Clay Martin, Surfacing Solutions

Automated Test in the Design Cycle
Dick Budde, Distek Integration

SESSION II
Fluid Power Technology
Joel Werling, John Deere

Hydraulics and Engines: Controls for Efficiency
Scott Decker, Cummins

Bio-Based Lubricants
Mike Jensen, Environmental Lubricants Manufacturing

Fan Drive Motors and Charge/Lube Pump Designs for Ag Applications
John Einfalt, Parker Hannifin

Electrohydraulics System Design: Industry Trends and the Road to the Future
Patrick Babka, Eaton

SESSION III
Tier 4 Emissions 2010 Update
Jim Bolinger

The MTU Tier 4 Solution
Andrew Suda, MTU Detroit Diesel

Tier 4 Emissions: An OEM Perspective
Andrew Holtz, AGCO

Tier 4 Update: Field Test Results and Lessons Learned
Scott Decker, Cummins

Engineering Guide to DC Electric Cooling Systems
Dan Zenor, SPAL USA

NOON lunch KEYNOTE SPEAKER

Bob Recker, Founder and Owner, Cedar Valley Innovation LLC

"25 Years of Progress: Here's to Passion that Powers us Forward!"

2:30 PM-4:30 PM

SESSION I
Fluid Power Technology Part II
Randy Rush, John Deere

Distributed Fan Drives
Charlie Throckmorton, Sauer-Danfoss

TBA
TBA, Bucher Hydraulics

Power to Weight Ratios
Scott Belzen, Poclain Hydraulics

Applying Wireless Technology to Electrohydraulics: From Command and Control to Sensor Networks
Anthony Di Tommaso, Cervis Inc.

SESSION II
2009 Harvest Challenge
Joel Werling, John Deere

Machine Modifications and Settings
Matthew Digman, University of Wisconsin-Madison

Grain Bins - Increasing Drying Capacity/Fuel efficiency
Dave Morrison, GSI

Managing Harvest Ruts
Mark Hanna, Iowa State University

600C Corn Head Design: Down Corn
Steve Reick, John Deere

SESSION III
Alternative Drivelines
Eric Cullen, Cummins Central Power

Dual Yoke HMT Technology
Joe Wright, Sauer-Danfoss

Electric Hybrid Systems for Construction and Ag Machines
Bruce Beans, Hienzmann & Co.

Engine Integration in Electric Hybrid Projects
Scott Decker, Cummins

Smart Heavy Duty Driveline Controls and Hybrid Concepts
Joe Guinter, PT Tech

SUPPLIER EXHIBITS & EQUIPMENT DISPLAYS
 Exhibits open from 8:00 AM to 2:30 PM
 Breakfast (7:30-9 AM) and refreshments available on Exhibit Floor

DRIVING

The Crowne Plaza Five Seasons Hotel is located in downtown Cedar Rapids, Iowa. I-380 runs directly behind the hotel. Exit at the US Cellular Center exit, which is Exit 20-B. The first stop light will be at 7th Street and A Avenue NE. Stay on 7th Street one block to First Avenue and turn right (west). Continue on First Avenue for 3 1/2 blocks and as you cross the railroad tracks, you will find the Hotel drive-through on your right. You may park in the drive, on the right, for a short time while you check in. Upon entering the building, you will notice a welcome sign directing you to where you may take the elevators to the hotel lobby on the second floor, and the AMC registration desk on the exhibit floor, lower level.

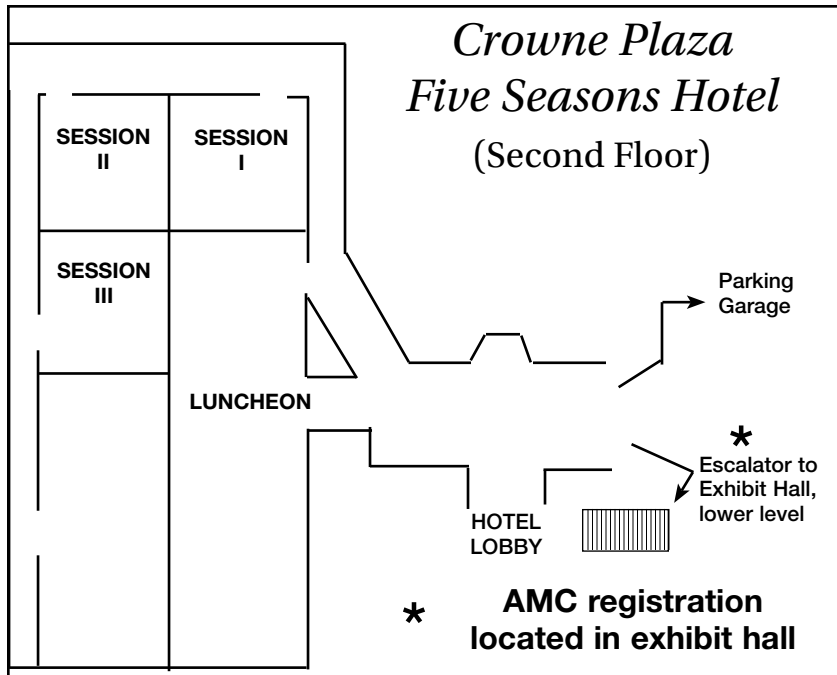
PARKING

Parking is available at the northeast end of the Crowne Plaza Hotel. There are several additional parking ramps located in the downtown area. Please ask a hotel attendant for assistance.

The Skywalk is the main hallway outside the second floor lobby. The blue fluorescent signs will lead you to the parking ramp.

COMMITTEES

A number of committees from SAE, ASABE, etc., find it convenient to meet at AMC. If your committee would like to be among them, please contact Andrew Peterson, (319) 292-8530. Attendees should check the list of committee meeting times and locations at the registration desk.



25th ANNUAL AMC EXECUTIVE COMMITTEE

General Chair:

Jacob Bolson, Hagie Mfg. Co.

Treasurer:

Josh Shircliff, Sauer-Danfoss

Program Co-Chairs:

Joel Werling, John Deere Seeding Group

Randy Rush, John Deere PEC

Eric Cullen, Cummins Central Power

Webmaster:

Rick Vokoun, John Deere Waterloo Works

General Secretary:

Andrew Peterson, John Deere PEC

Booklet:

Chad Elmore, *OEM Off-Highway*

Operations:

Andrew Peterson, John Deere PEC

Registration:

Todd Lincoln, Cummins Central Power

Marty Kopriva, Sauer-Danfoss

Keynote Speakers:

Michael Thomas, John Deere PEC

Hotel Relations:

Jim Houch

Publicity:

Dawn Geske, *Diesel Progress*

Exhibits Co-Chairs:

Jim Houch

Rachel Dudley, Iowa State

Pam Strum

Machinery Exhibits:

Jim Evans, John Deere PEC

Continuing Education:

Michael Thomas, John Deere PEC

find contact information at www.amc-online.org

PREVIOUS and CURRENT AMC EXHIBITORS

Actech North America
Alcoa Fastening Systems
Applied OEM Inc.
ASABE
Auburn Gear Inc.
Bee Valve Inc.
Bondioli & Pavesi Inc.
Bosch Rexroth Corp.
Brand Preference Development Co.
Carlisle Power Transmission Products
Clancey Design Distributor
Clarkson Co.
Concept Solutions Inc.
Dana Corp., Spicer Off-Highway Div.
Daxcon
Delphi
Denison Hydraulics Inc.
Dichtomatik NA
Diedrichs & Assoc.
Diesel Progress magazine
DISTeck Integration
Donaldson Co.
Drives Inc.
dSpace Inc.
Dy-Tronix Inc.
Eagle Alloy Inc.
Farm Safety 4 Just Kids
Faster Inc.
Felton Brush Inc.
GKN Armstrong Wheels Inc.
GKN Walterscheid Inc.

GGB LLC
Global Tube Form
Gits Mfg. Co.
GMP Metal Products
Grayhill
H & H Sales Inc.
HED Inc.
HEF USA Corp.
Helac Corp.
INA USA Corp.
Igu Inc.
Illinois Valley Plastics
Iowa Laser Technology Inc.
Instrumented Sensor Tech.
John Boyt Industrial Sewing
JW Speaker
Kondex
KTR Corp.
Lord Corp.
MTS Sensors Div.
Midwest Controls Products Corp.
Miller Products Co.
Minnesota Rubber & QMR Plastics
Murphy
Nord-Lock Inc.
OEM Off-Highway magazine
Orscheln Products
P&P Industries
PEER Bearing Co.
Plastics Unlimited
Polygon Co.

Port City Metals
Prairie Engineering Inc.
Pro Machine Inc.
Quadrastat Corp.
RB Royal Industries
Raybestos Powertrain
RFA/Minnesota Engineering
RM Michaelides Software
Roto Mold Inc.
SAE Off-Highway Engineering magazine
SATLOC
Sauer-Danfoss
Schaffler Group
Shoemaker Inc.
Solvay Advanced Polymers
Spiralock Corp.
Stabilus
STW Technic LP
Team Industries
Tiber Machine Products
Timken Corp.
TMI
Trimble
Vector CANtech Inc.
Wabash Tech
Weasler Engineering Inc.
Western Canada Testing Inc.
Wyle Laboratories
ZF Industries
Zuken USA Inc.

A list of this year's exhibitors will be available on the exhibit floor during the conference.

**Commemorate
AMC's 25th year with this limited-edition
1/16-scale Case DC from SpecCast.**
For more information, visit amc-online.org or attend the show.



PRODUCT DISPLAYS

Selected equipment from farm machinery and component manufacturers will be on display in the exhibit hall.

26th Annual AGRICULTURAL MACHINERY CONFERENCE

May 2, 3 & 4, 2011

Planning is under way for the 26th Annual AMC. Persons interested in presenting papers, serving on committees, or in reserving exhibit space should contact:

Jacob Bolson

515-532-2861, ext. 6318

jbolson@hagie.com

Thanks to *Diesel Progress*, *Farm Equipment*, *OEM Off-Highway*, and *SAE Off-Highway Engineering* magazines for helping to promote the Agricultural Machinery Conference.

