

Superior Paper Award Winners
1995 - 2017

1995 presented 1996

F.A. PAYNE

Automatic Control of Coagulum Cutting in Cheese Manufacturing
APPLIED ENGINEERING in AGRICULTURE, Vol. 11, No. 5

D.D. JONES, M.F. KOCHER

Auger Design for Uniform Unloading of Granular Material: I. Rectangular Cross- Section Containers
TRANSACTIONS of the ASAE, Vol. 38, No. 4

V. ROS, R.J. SMITH, S.J. MARLEY, D.C. ERBACH

Mathematical Modeling and Computer- Aided Design of Passive Tillage Tools
TRANSACTIONS of the ASAE, Vol 38, No. 3

M. BENADY J.E. SIMON, D.J. CHARLES, G.E. MILES

Fruit Ripeness Determination by Electronic Sensing of Aromatic Volatiles
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N.L. BUCK, G.P. GROFF

Determining the Thickness of Layers of Materials by Dielectric-Constant Measurements
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D.K. GILES, J. GARDNER, H.E. STUDER

Mechanical Release of Predacious Mites for Biological Pest Control in Strawberries
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Q. ZHANG, M.G. BRITTON

Predicting Hygroscopic Loads in Grain Storage Bins
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T.J. TROUT, R.E. SOJKA, R.D. LENTZ

Polyacrylamide Effect on Furrow Erosion and Infiltration
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L.G. SCHUMACHER, S.C. BORGELT, W.G. HIRES

Fueling a Diesel Engine with Methyl- Ester Soybean Oil
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H. RAMON, J. DE BAERDEMAEKER

Using Principal Gains for Evaluating and Optimizing the Performance of Sprayers
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B. Park, Y.R. Chen

Multispectral Image Co-Occurrence Matrix Analysis for Poultry Carcasses Inspection
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R.W. Claycomb, M.J. Delwiche, C.J. Munro, R.H. BonDurant

Enzyme Immunoassay for On-Line Sensing of Milk Progesterone

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X.C. Zhang, M.A. Nearing, L.M. Risse, K.C. McGregor

Evaluation of WEPP Runoff and Soil Loss Predictions Using Natural Runoff Plot Data TRANSACTIONS of the ASAE, Vol. 39, No. 3

K. Chao, R.S. Gates

Design of Switching Control Systems for Ventilated Greenhouses
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T.G. Franti, G.R. Foster, E.J. Monke

Modeling the Effects of Incorporated Residue on Rill Erosion Part II: Experimental Results and Model Validation
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W.H. Yang, S. Cenkowski, H.S. Wang

Microwave-Enhanced Denaturation of Sugar Beet Tissues
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G.D. Williams, D.R. Bohnhoff, R.C. Moody

Locating Butt-Joints in Four-Layer, Nail- Laminated Assemblies
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H. Xin, I.L. Berry, G.T. Tabler

Minimum Ventilation Requirement and Associated Energy Cost for Aerial Ammonia in Broiler Houses
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H. Xin, K. Lee

Use of Aqua-Jel. and Feed for Nutrient Supply During Long Journey Air Transport of Baby Chicks
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Modeling the Effects of Incorporated Residue on Rill Erosion Part I: Model Development and Sensitivity Analysis
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D.K. GILES, D.C. SLAUGHTER

Precision Band Spraying with Machine- Vision Guidance and Adjustable Yaw Nozzles
TRANSACTIONS of the ASAE, Vol. 40, No. 1

D.E. RESSLER, R. HORTON, J.L. BAKER, T.C. KASPAR

Testing a Nitrogen Fertilizer Applicator Designed to Reduce Leaching Losses
APPLIED ENGINEERING IN AGRICULTURE Vol. 13, No. 3

E.T. WEATHERLY, C.G. BOWERS, JR.

Automatic Depth Control of a Seed Planter Based on Soil Drying Front Sensing
TRANSACTIONS of the ASAE, Vol. 40, No. 2

T.L. FOUTZ, G.N. ROWLAND, M. EVANS

An Avian Modeling Approach for Analyzing Modeling and Analysis of Mixed-Flow Bone Loss Due to Disuse
TRANSACTIONS of the ASAE, Vol. 40, No. 6

M.P. ZEIGLER, H.B. MANBECK, W.B. ROUSH

Sources of Variance in Feed Distribution Systems
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R.H. ZHANG, P.N. DUGBA, D.S. BUNDY

Laboratory Study of Surface Aeration of Anerobic Lagoons for Odor Control of Swine Manure
TRANSACTIONS of the ASAE, Vol. 40, No. 1

M.A. BREVE, R.W. SKAGGS, J.E. PARSONS, J.W. GILLIAM

DRAINMOD-N, A Nitrogen Model for Artificially Drained Soils
TRANSACTIONS of the ASAE, Vol. 40, No. 4

Q. LIU, C. CAO, F.W. BAKKER- ARKEMA

Modeling and Analysis of Mixed Flow Grain Dryer
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1998 presented 1999

D.C. YODER, J.B. WILKERSON, J.R. BUCHANAN, K.J. HURLEY, R.E. YODER

Development and Evaluation of a Device to Control Time Varying Flows
TRANSACTIONS of the ASAE, Vol. 41, No. 2

Y. TAO

Closed-loop Search Method for On-Line Automatic Calibration of Multi-camera Inspection Systems
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Q. ZHANG, X. BU, M.G. BRITTON

An Analytical Model for Predicting Stresses in Grain Storage Bins
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R. BAJEMA, G.M. HYDE, K. PETERSON

Precision Farming with Kinematic GPS Instrumentation Design for Dynamic Axial Compression of Cylindrical Tissue Samples
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T.D. GLANVILLE, J.L. BAKER, J.K. NEWMAN

Evaluation of Methods for Diagnosing Contamination in Rural Wells
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K.M. ROBINSON, C.E. RICE, K.C. KADAVY

Design of Rock Chutes
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N. GALILI, I. SHMULEVICH, N. BENICHO

Acoustic Testing of Avocado for Fruit Ripeness Evaluation
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R.L. CLARK, R. LEE

Development of Topographic Maps for Precision Farming with Kinematic GPS
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G.J. Riley, K.G. Gebremedhin

Axial and Rotational Stiffness Model of Metal-Plate-Connected Wood Truss Joints
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J.G. Ibarra, Y. Tao, J. Walker, C. Griffis

Internal Temperature of Cooked Chicken Meat Through Infrared Imaging and Time Series Analysis
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J. Arogo, R.H. Zhang, G.L. Riskowski, D.L. Day

Mass Transfer Coefficient for Hydrogen Sulfide Emission From Aqueous Solutions and Liquid Swine Manure
TRANSACTIONS of the ASAE, Vol. 42, No. 5

H. Zhou, H. Xin

Effects of Heat Lamp Output and Color on Piglets at Cool and Warm Environments
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L. Tian, J.F. Reid, J.W. Hummel Development of a Precision Sprayer for Site-Specific

Weed Management

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R.R. Ruan, Z. Long, K. Chang, P.L. Chen, I.A. Taub

Glass Transition Temperature Mapping Using Magnetic Resonance Imaging
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S. Kang, S.R. Delwiche

Moisture Diffusion Modeling of Wheat Kernels During Soaking
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A. Bechar, I. Shmulevich, D. Eisikowitch, Y. Vaknin, B. Ronen, S. Gan-Mor

Modeling and Experiment Analysis of Electrostatic Date Pollination
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2000 presented 2001

W.C. HOFFMANN, H.H.TOM

Effects of Lowering Spray Boom in Flight on Swath Width and Drift
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A. MILLMIER, J. LORIMOR, C. HURBURGH, JR., C. FULHAGE, J. HATTEY, H. ZHANG Near-Infrared Sensing of Manure Nutrients

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H.M. KEENER, D.L. ELWELL, M.J. MONNIN

Procedures and Equations for Sizing of Structures and Windrows for Composting Animal Mortalities
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A. AL-FARAJ, G.E. MEYER, G.R. SCHADE, G.L. HORST

Dynamic Analysis of Moisture Stress in Tall Fescue (*Festuca Arundinacea*) Using Canopy Temperature, Irradiation, and Vapor Deficit
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D.L. BJORNEBERG, J.K. AASE, D.T. WESTERMANN

Controlling Sprinkler Irrigation Runoff, Erosion and Phosphorus Loss with Straw and Polyacrylamide
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J.N. IKEDIALA, J. TANG, T. WIG

A Heating Block System for Studying Thermal Death Kinetics of Insect Pests
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B.J. HE, Y. ZHANG, Y. YIN, T.L. FUNK G.L. RISKOWSKI

Operating Temperature and Retention Time Effects on the Thermochemical Conversion Process
of Swine Manure
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A. SRIWATANAPONGSE, M. BALABAN, A. TEIXEIRA

Thermal Inactivation Kinetics of Bromelain in Pineapple Juice
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2001 presented 2002

**N. SCHEERLINCK, P. VERBOVEN, K.A. FIKIIN, J. DE BAERDEMAEKER,
B.M. NICOLAÚ**

Finite Element Computation of Unsteady Phase Change Heat Transfer During Freezing or Thawing
of Food Using a Combined Enthalpy and Kirchhoff Transform Method
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S. ZOLNIER, R.S. GATES, R.G. ANDERSON S.E. NOKES, G.A. DUNCAN

Non-Water-Stressed Baseline as a Tool for Dynamic Control of a Misting System for Propagation of
Poinsettias
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V.I. ADAMCHUK, M.T. MORGAN, H. SUMALI

Application of a Strain Gauge Array to Estimate Soil Mechanical Impedance On-The Go
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T.C. PEARSON

Detection of Pistachio Nuts with Closed Shells Using Impact Acoustics
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M.D. SCHROCK, J.J. GRIMM, D.L. OARD R.K. TAYLOR, T.C. KOLB, J.D. ANDERSON Performance

of a Multipoint Pulse-Width Modulation Metering System for Ammonia
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B. PANNETON, R. THÉRIAULT, B. LACASSE

Efficacy Evaluation of a New Spray-Recovery Sprayer for Orchards
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A. LUO, J. ZHU, P.M. NDEGWA

Phosphorus Transformations in Swine Manure During Continuous and Intermittent Aeration Processes
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Y. SHI, D.B. PARKER, N.A. COLE, B.W. AUVERMANN, J.E. MEHLHORN

Surface Amendments to Minimize Ammonia Emissions from Beef Cattle Feedlots
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T.E. GRIFT, J.T. WALKER, J.W. HOFSTEE

Mass Flow Measurement of Granular Materials in Aerial Application – PART 2: Experimental
Model Validation
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R.D. LAMM, D.C. SLAUGHTER, D.K. GILES

Precision Weed Control System for Cotton
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C.-C. JIA, W. YANG, T.J. SIEBENMORGEN, R.C. BAUTISTA, A.G. CNOSEN

A Study of Rice Fissuring by Finite-Element Simulation of Internal Stresses Combined with High-Speed Microscopy Imaging of Fissure Appearance
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T.E. GRIFT, J.W. HOFSTEE

Testing an Online Spread Pattern Determination Sensor on a Broadcast Fertilizer Spreader
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M. KACIRA, P.P. LING, T.H. SHORT

Machine Vision Extracted Plant Movement for Early Detection of Plant Water Stress
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S. MONGPRANEET, T. ABE, T. TSURUSAKI

Far Infrared - Vacuum and - Convection Drying of Welsh Onion
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Y.M. BAE, S.I. CHO

Response of Polymer Membranes as Sensing Elements for an Electronic Tongue
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A.C. SHETH, A.D. TURNER

Kinetics and Economics of Catalytic Steam Gasification of Broiler Litter
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A.J. BUKTA, K. SAKAI, A. SASAO, S. SHIBUSAWA

Free Play as a Source of Nonlinearity in Tractor-Implement Systems During Transport
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2003 presented 2004

S. WANG, J. TANG, R. CAVALIERI, D. DAVIS

Differential Heating of Insects in Dried Nuts and Fruits Associated with Radio Frequency and Microwave Treatments
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M. VANOTTI, A. SZOGI, P. HUNT

Extraction of Soluble Phosphorus From Swine Wastewater
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J. BONTA, F. PIERSON

Design, Measurement, and Sampling with Drop-Box Weirs
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C. AGUIRRE, K. HAGHIGHI

Stochastic Finite Element Analysis of Transient Unsaturated Flow in Porous Media
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R. LU

Detection of Bruises on Apples Using Near-Infrared Hyperspectral Imaging

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K. ARORA, S. MICKELSON, J. BAKER

Effectiveness of Vegetated Buffer Strips in Reducing Pesticide Transport in Simulated Runoff

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K. GILLIS, D. KEN GILES, D. SLAUGHTER, D. DOWNEY

Injection Mixing System for Boomless, Target-Activated Herbicide Spraying

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J. SUTTLES, G. VELLIDIS, D. BOSCH, LOWRANCE, J. SHERIDAN, E. USERY

Watershed-Scale Simulation of Sediment and Nutrient Loads in Georgia Coastal Plain Streams Using the Annualized AGNPS Model

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R. SIVAKESAVA, J. IRUDAYARAJ, C. DEBROY

Differentiation of Microorganisms by FTIR-ATR and NIR Spectroscopy

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J. CHAPLIN, N. HEMMING, B. HETCHLER

Comparison of Impact Plate and Torque- Based Grain Mass Flow Sensors

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M.C. SIEMENS, D.E. WILKINS, R.F. CORREA

Development and Evaluation of a Residue Management Wheel For Hoe-Type No-Till Drills

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M.H. NICHOLS

A Radio Frequency Identification System for Monitoring Coarse Sediment Particle Displacement

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H.Y. JEON, A.R. WOMAC, J. GUNN

Sprayer Boom Dynamic Effects on Application Uniformity

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T.M. BROWN-BRANDL, J.A. NIENABER H. XIN, R.S. GATES

A Literature Review of Swine Heat Production

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D.K. GILES, D. DOWNEY, D.C. SLAUGHTER J.C. BREVIS-ACUNA, W.T. LANINI

Herbicide Micro-Dosing for Weed Control in Field-Grown Processing Tomatoes

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J.W. JONES, W.D. GRAHAM, D. WALLACH W.M. BOSTICK, J. KOO

Estimating Soil Carbon Levels Using an Ensemble Kalman Filter

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K.E. PERSYN, H. XIN, D. NETTLETON, A. IKEGUCHI, R.S. GATES

Feeding Behaviors of Laying Hens With or Without Beak Trimming

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E.D. VORIES, P.L. TACKER, R. HOGAN

Multiple Inlet Approach to Reduce Water Requirements for Rice Production
APPLIED ENGINEERING IN AGRICULTURE Vol. 21, No. 4

D. BRABEC, R. MAGHIRANG, M. CASADA, E. HAQUE

Characterization and Modeling of a High-Pressure Water-Fogging System for Grain Dust Control
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A. AMÉZQUITA, L. WANG, C.L. WELLER

Finite Element Modeling and Experimental Validation of Cooling Rates of Large Ready-to Eat Meat Products in Small Meat-Processing Facilities
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L.D. JACOBSON, H. GUO, D.R. SCHMIDT, R.E. NICOLAI, J. ZHU, K.A. JANNI

Development of the OFFSET Model for Determination of Odor-Annoyance-Free Setback Distances From Animal Production Sites: Part I. Review and Experiment
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J. WEI, F. ROVIRA-MAS, J.F. REID, S. HAN

Obstacle Detection Using Stereo Vision to Enhance Safety of Autonomous Machines
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X.-L. SU, Y. LI

Surface Plasmon Resonance and Quartz Crystal Microbalance Immunosensors For Detection of ESCHERICHIA COLI 0157:H7
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G.J. HANSON, K.R. COOK, S.L. HUNT

Physical Modeling of Overtopping Erosion and Breach Formation of Cohesive Embankments
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W. YUAN, A.C. HANSEN, M.E. TAT, J.H. VAN GERPEN, Z. TAN

Spray, Ignition, and Combustion Modeling of Biodiesel Fuels for Investigating NOX Emissions
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K.G. GEBREMEDHIN, B. WU, C. GOOCH, P. WRIGHT, S. INGLIS

Heat Transfer Model for Plug-Flow Anaerobic Digesters
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Y. DING, K.C. DAS, W.B. WHITMAN, J.R. KASTNER

Enhanced Biofiltration of Hydrogen Sulfide in the Presence of Methanol and Resultant Bacterial Diversity
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D.-Y. CHEONG, C.L. HANSEN

Feasibility of Hydrogen Production from Anaerobic Mixed Fermentation
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B.B. HE, A.P. SINGH, J.C. THOMPSON

A Novel Continuous-Flow Reactor Using Reactive Distillation Technique for Biodiesel Production
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F. ROVIRA-MÁS, J.F. REID, Q. ZHANG

Development of the OFFSET Model for Determination of Odor-Annoyance-Free Setback Distances From Animal Production Sites: Part I. Review and Experiment
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D. DOWNEY, T.G. CROWE, D.K. GILES, D.C. SLAUGHTER

Direct Nozzle Injection of Pesticide Concentrate Into Continuous Flow for Intermittent Spray Applications
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Testing and Creation of a Safety System to Disengage the PTO of a Tractor
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R.D. HARMEL, R.J. COOPER, R.M. SLADE, R.L. HANEY, J.G. ARNOLD

Cumulative Uncertainty in Measured Steamflow and Water Quality Data for Small Watersheds
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A.V. VAN WAGENBERG, C.M.C. VAN DER PEET-SCHWERING, G.P. BINNENDIJK, P.J.P.W. CLAESSEN

Effect of Floor Cooling on Farrowing Sow and Litter Performance: Field Experiment Under Dutch Conditions
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J.A. SORENSEN, J.J. MAY, P.L. JENKINS, A.M. JONES, G.B. EARLE- RICHARDSON

Risk Perceptions, Barriers, and Motivators to Tractor ROPS Retrofitting in the New York State Farm Community
JOURNAL OF AGRICULTURAL SAFETY AND HEALTH Vol. 12, No. 3

2007 presented 2008

R. S. COMER, P. D. AYERS, J. LIU

Evaluation of Engineering Plastic for Rollover Protective Structure (ROPS) Mounting
JOURNAL OF AGRICULTURAL SAFETY AND HEALTH Vol. 13, No. 2

P. LIBERATI, P. ZAPPAVIGNA

A Dynamic Computer Model for Optimization of the Internal Climate in Swine Housing Design
TRANSACTIONS OF THE ASABE Vol. 50, No. 6

A MIZRACH, Z. SCHMILOVITCH, R. KOROTIC, J. IRUDAYARA J, R. SHAPIRA

Yeast Detection in Apple Juice using Raman Spectroscopy and Chemometric Methods
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A. A. SZÖGI, M.B. VANOTTI

Abatement of Ammonia Emissions from Swine Lagoons Using Polymer-Enhanced Solid-Liquid Separation
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B. PARK, S. C. YOON, K. C. LAWRENCE, W. R. WINDHAM

Fisher Linear Discriminate Analysis for Improving Fecal Detection Accuracy with Hyperspectral Images
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J. ENCISO-MEDINA, P. D. COLAIZZI, W. L. MULTER, C. R. STICKLER

Cotton Response to Phosphorus Fertigation Using Subsurface Drip Irrigation
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**K. J. SHINNERS, G. S. ADSIT, B. N. BINVERSIE, M. F. DIGMAN, R. E. MUCK,
P. J. WEIMER**

Single-Pass, Split-Stream Harvest of Corn Grain and Stover
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D. L. BJORNEBERG, C. J. PRESTWICH, R. G. EVANS

Evaluating the Surface Irrigation Soil Loss (SISL) Model
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M. E. TAT, J. H. VAN GERPEN, P.S. WANG

Fuel Property Effects on Injection Timing, Ignition Timing, And Oxides of Nitrogen Emissions from Biodiesel-Fueled Engines
TRANSACTIONS OF THE ASABE Vol. 50, No. 4

2008 presented 2009

**M. L. SARPOLA, R. K. PAASCH, E. N. MORTENSEN, T. G. DIETTERICH, D. A. LYTLE,
A. R. MOLDENKE, L. G. SHAPIRO**

An Aquatic Insect Imaging System to Automate Insect Classification
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P. ANDRADE-SANCHEZ, S. K. UPADHYAYA, C. PLOUFFE, B. POUTRE

Development and Field Evaluation of a Field-Ready Soil Compaction Profile Sensor for Real-Time Applications
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R. SUI, J.A. THOMASSON, Y. GE, C. MORGAN

Multispectral Sensor For In-Situ Cotton Fiber Quality Measurement
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J. L. PURSWELL, B. K. FRITZ, S. L. BRANTON, S.A. LEIGH

Effects of System Pressure and Nozzle Type on Spray Application of Avian Vaccines
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S. BALASUBRAMANIAN, V. M. PURI

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C. S. RENSCHLER, D. C. FLANAGAN

Site-Specific Decision-Making Based on RTK GPS Survey and Six Alternative Evaluation Data Sources: Soil Erosion Predictions
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Sequential Infrared Radiation and Freeze-Drying Method for Producing Crispy Strawberries
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Fecal Indicator Bacteria in Subsurface Drain Water Following Swine Manure Application
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J. H. LUMKES JR., W. VAN DOORN IV

Design and Testing of a Dual-Path Front Hydrostatic Drive-By-Wire Control System for an Off-Road

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2009 presented 2010

J.E. WOLFE III, O.T. LIND, D.W. HOFFMAN

A Constant-Volume Artificial Stream for Reducing Variation in Aquatic Process Measurements
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X. WANG, P. AYERS, A.R. WOMAC

Static Simulation and Analyses of Mower's ROPS Behavior In a Finite Element Model JOURNAL OF
AGRICULTURAL SAFETY AND HEALTH Vol. 15, No. 4

K.S. LEE, D.H. LEE, K.A. SUDDUTH, S.O. CHUNG, N.R. KITCHEN, S.T. DRUMMOND

Wavelength Identification and Diffuse Reflectance Estimation for Surface and Profile Soil Properties
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2010 presented 2011

G. BORREANI, E. TABACCO

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Cost-Effectiveness of a ROPS Social Marketing Campaign
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2011 presented 2012

B. SHARMA, C. L. JONES, A. KHANCHI

Tensile Strength and Shear Strength of Switchgrass Before and After Frost
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R. KUBOTA, A. M. ALVAREZ, W. W. SU, D. M. JENKINS

FRET-Based Assimilating Probe for Sequence-Specific Real-Time Monitoring of Loop-Mediated Isothermal Amplification
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Evaluating the Protective Capacity of Two-Post ROPS for a Seat-Belted Occupant During a Farm Tractor Overturn
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2012 presented 2013

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Establishing the Need for an Engineering Standard for Agricultural Hitch Pins
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Y. TONG, T. KOZAI, N. NISHIOKA, K. OHYAMA

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J. LAMBA, T.R. WAY, P. SRIVASTAVA, S. SEN, C.W. WOOD, K.H. YOO

Surface Transport of Nutrients from Surface-Broadcast and Subsurface-Banded Broiler Litter
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M. HERNANDEZ, S. YATHEENDRADAS, J.R. KENNEDY, L.R. LEVICK** KINEROS2/AGWA:
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2013 presented 2014

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A Conjugate Heat and Mass Transfer Model to Evaluate the Efficiency of Conductive Cooling for Dairy Cattle
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A Scour Depth Approach for Deriving Erodibility Parameters from Jet Erosion Tests
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Hydrogen Sulfide Gas Emissions in the Human-Occupied Zone during Disturbance and Removal of Stored Spent Mushroom Compost
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2014 presented 2015

N. NAHAR, R. RORICK, S.W. PRYOR

Effects of Enzyme and Solids Loading on Sugar Beet Pulp Hydrolysis:
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**B. PARK, W.R. WINDHAM, S.R. LADELY, P. GURRAM, H. KWON,
S.C. YOON, K.C. LAWRENCE, N. NARANG, W.C. CRAY**

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A Char-Supported Nano-NiO Catalyst for Biomass Syngas Cleanup with Conditioning
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Porosity Measurement of Granular Materials by Comparisons of Air Pressure Decay Rates
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Novel Willow Header Adapted to a Pull-Type Forage Harvester: Development and Field Experiments
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Effect of Measurement Density on Characterizing Air Velocity Distribution in Commercial
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Heat and Moisture Production Rates of a Modern U.S. Swine Breeding, Gestation, and Farrowing
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Evaluation of CSM-CROPGRO-Cotton for Simulating Effects of Management and Climate Change on Cotton Growth and Evapotranspiration in an Arid Environment
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B.J. CZARTOSKI, N.R. FAUSEY, L.C. BROWN**

Crop Yield Summary for Three Wetland Reservoir Subirrigation Systems in Northwest Ohio
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G.A. MOSHER, N. KEREN, S.A. FREEMAN, C.R. HURBURGH, JR

Development of a Safety Decision-Making Scenario to Measure Worker Safety in Agriculture
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2015 presented 2016

A Fluorescent Aptasensor Coupled with Nanobead-Based Immunomagnetic Separation for Simultaneous Detection of Four Foodborne Pathogenic Bacteria

L. Xu, Z. T. Callaway, R. Wang, H. Wang, M. F. Slavik, A. Wang, Y. Li

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The Efficiency of Biofilters at Mitigating Airborne MRSA from a Swine Nursery

D. D. Ferguson, T. C. Smith, K. J. Donham, S. J. Hoff

Journal of Agricultural Safety and Health 21(4)

Ethanol Production from Sugarcane Bagasse Using SSF Process and Thermotolerant Yeast

G. M. Silva, R. L. C. Giordano, A. J. G. Cruz, K. D. Ramachandriya, I. M. Banat, M. R. Wilkins

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Vegetated Treatment Area Effectiveness at Reducing Nutrient Runoff from Small Swine Operations in Central Texas

K. D. Higgs, R. D. Harmel, K. Wagner, P. K. Smith, R. L. Haney, D. R. Smith, R. Pampell

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Soil Erosion from Winter Wheat Cropland under Climate Change in Central Oklahoma

J. D. Garbrecht, X. C. Zhang

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Heterogeneity of Infiltration Rates in Alluvial Floodplains as Measured with a Berm Infiltration Technique

D. M. Heeren, G. A. Fox, D. E. Storm

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A New Model for Phosphorus Loss in Runoff from Outdoor Cattle Lots

P. A. Vadas, L. W. Good, J. C. Panuska, D. L. Busch, R. A. Larson

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D. J. Lyons, P. H. Heinemann, J. R. Schupp, T. A. Baugher, J. Liu

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Process-Based Modeling of Ammonia and Nitrous Oxide Emissions from Open-Lot Beef and Dairy Facilities

H. F. Bonifacio, C. A. Rotz, A. B. Leytem, H. M. Waldrip, R.W. Todd

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Odor and Odorous Chemical Emissions from Animal Buildings: Part 3. Chemical Emissions

L. Cai, J. A. Koziel, S. Zhang, A. J. Heber, E. L. Cortus, D. B. Parker, S. J. Hoff, G. Sun, K. Y. Heathcote, L. D. Jacobson, N. Akdeniz, B. P. Hetchler, S. D. Bereznicki, E. A. Caraway, T. T. Lim

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An Optical Sprayer Nozzle Flow Rate Sensor

J. S. Dvorak, L. E. Bryant

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Flow, Spray Pattern, and Droplet Spectra Characteristics of an Electronically Actuated Variable-Orifice Nozzle

J. D. Luck, S. K. Pitla, M. P. Sama, S. A. Shearer

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M. A. Sadek, Y. Chen

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Analyzing Correlations between Stream Benthic Macroinvertebrate Community Structure, Water Quality, and Watershed Land Use in the Continental United States

H. N. Sandefur, E. Cummings, R. Z. Johnston, M. D. Matlock, D. I. Gustafson

Biological Engineering Transactions 7(4)

2016 presented 2017

Engineering Economics of Cotton Stalk Supply Logistics Systems for Bioenergy Applications

K. Sahoo, S. Mani

Transactions of the ASABE 59(3)

Development and Evaluation of a Computer-Based ROPS Design Program

P. D. Ayers, F. Khorsandi, Y. John, G. Whitaker

Journal of Agricultural Safety and Health 22(4)

Canopy Light Interception Conversion in Upright Fruiting Offshoot (UFO) Sweet Cherry Orchard

J. Zhang, Q. Zhang, M. D. Whiting

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An Evaluation of Simplifying Assumptions in Dairy Cow Computational Fluid Dynamics Models

M. Mondaca, C. Y. Choi

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Evaluation of a Laser Scanning Sensor in Detection of Complex-Shaped Targets for Variable-Rate Sprayer Development

H. Liu, H. Zhu

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Fusion of Spectral and Electrochemical Sensor Data for Estimating Soil Macronutrients

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Recalibration Methodology to Compensate for Changing Fluid Properties in an Individual Nozzle Direct Injection System

J. D. Luck, S. A. Shearer, B. D. Luck, M. P. Sama

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J. E. Gilley, A. J. Sindelar, B. L. Woodbury

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Evaluating Greenhouse Gas Mitigation and Climate Change Adaptation in Dairy Production Using Farm Simulation

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Value of ENSO-Forecasted Drought Information for the Management of Water Resources of Small to Mid-Size Communities

V. Sharda, P. Srivastava

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The Variability of ASCE Standardized Reference Evapotranspiration: A Rigorous, CONUS-Wide Decomposition and Attribution

M. T. Hobbins

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A Runoff and Sediment Routing Model for Open Lot Beef Feeding Facilities

D. S. Andersen

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Analysis of Pear Dynamic Characteristics Based on Harmonic Response

W. Zhang, D. Cui, Z. Liu, Y. Ying

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Correlating Bulk Density (with Dockage) and Test Weight (without Dockage) for Wheat Samples

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Evaluation of Alternative Cover Materials for Reducing Hydrogen Sulfide Emission from Municipal Solid Waste (MSW) Landfills

Y. Ding, C. Cai, J. Xiong, A. Qian, J. Wei, B. Hu, W. Wu, Z. Han, H. Zhang, W. Ni

Transactions of the ASABE 59(4)

Mortality Rate of Weaned and Feeder Pigs as Affected by Ground Transport Conditions

Y. Zhao, H. Xin, J. D. Harmon, T. J. Baas

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2017 Presented in 2018

Effective Use of Dairy Manure Mixed with Sand Bedding for Gasification

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