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68th

Minnesota Nutrition Conference

& University of Minnesota Research Update Session:
Modern Concepts in Livestock Production for 2007



PROCEEDINGS

September 18-19, 2007

Minneapolis, Minnesota

68th Minnesota Nutrition Conference

and

University of Minnesota Research Update:
Modern Concepts in Livestock Production for 2007

September 18-19, 2007

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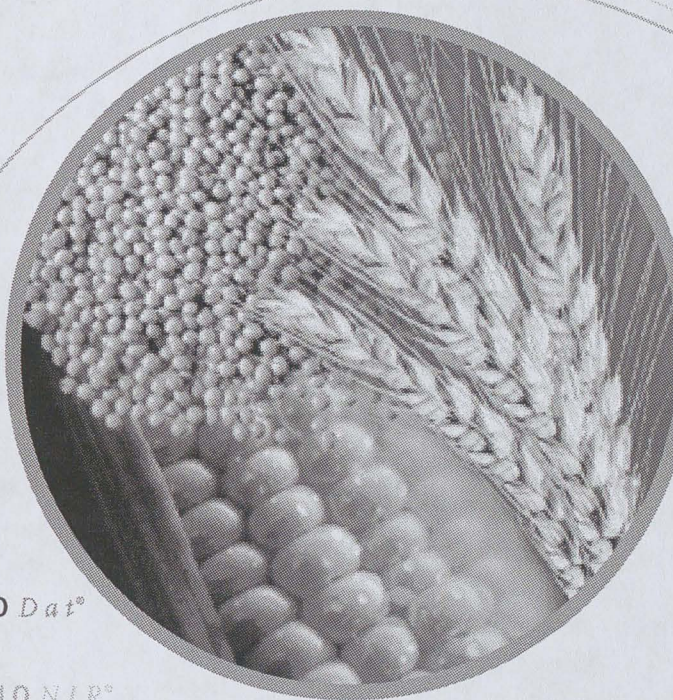
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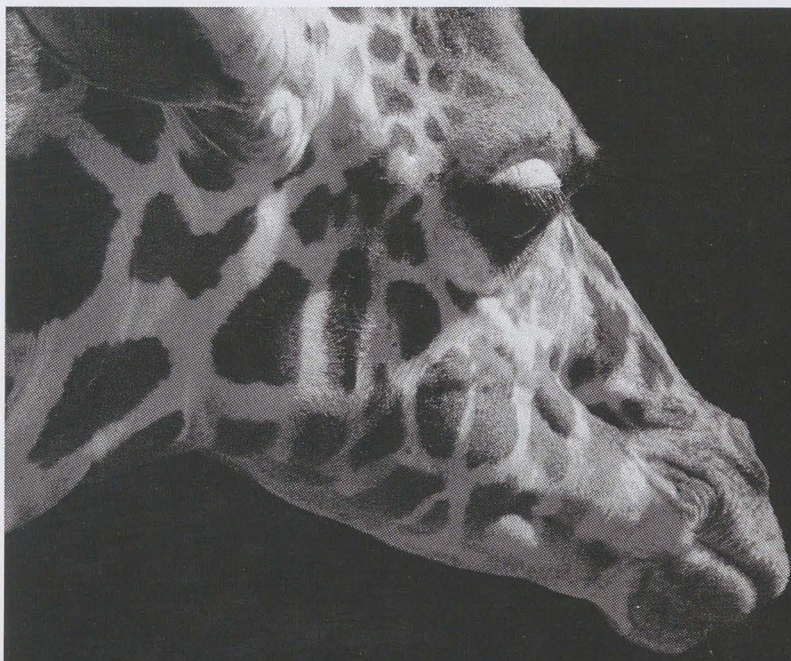
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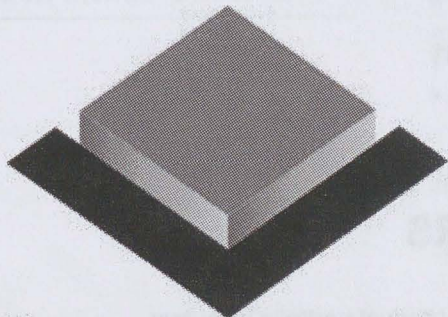
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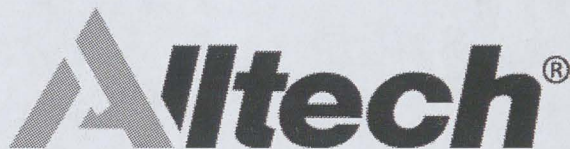
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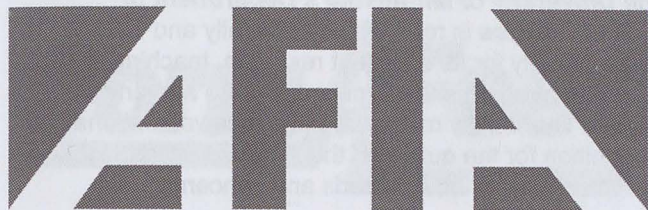
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Contact: Richard Sellers, vice president, feed regulation and nutrition

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- The Department maintains excellence in the basic areas of undergraduate animal science education, and participates proactively in work with industry clientele and communities to resolve livestock issues across Minnesota. We build connections with our stakeholders—students, industry clientele, legislators, and the community—through teaching and learning.
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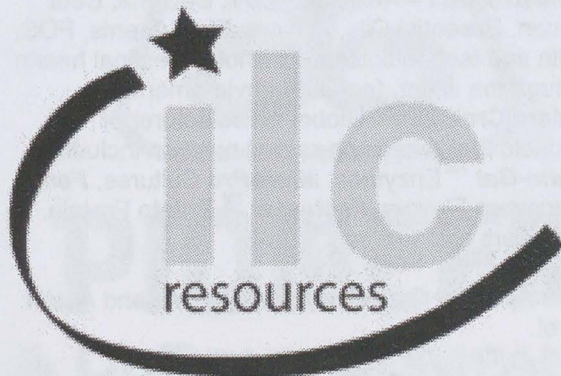
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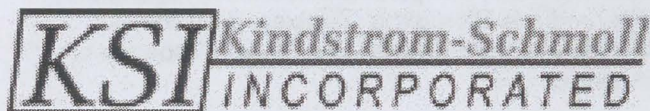
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68th Minnesota Nutrition Conference

and University of Minnesota Research Update: Modern Concepts in Livestock Production for 2007

The Minnesota Nutrition Conference provides a forum for feed industry professionals to update their knowledge of beef, dairy, poultry, and swine nutrition.



Speakers bring the latest concepts of livestock feeding from throughout North America.

University of Minnesota Research Update: Modern Concepts in Livestock Production for 2007
September 18, 2007, 8:55 a.m. – 12:00 noon

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68th Minnesota Nutrition Conference

and

University of Minnesota Research Update:
Modern Concepts in Livestock Production for 2007

Tuesday, September 18, 2007

Morning

University of Minnesota Research Update: Modern Concepts in Livestock Production for 2007

- 8:00 a.m. *Registration – Coffee and Pastries*
- 8:55 **Welcome**
Lee Johnston, West Central Research & Outreach Center, University of Minnesota and Minnesota Nutrition Conference Co-Chair
- 9:00 **Economics of Corn Demand and Feed Prices**
Brian Buhr, Department of Applied Economics, University of Minnesota
- 9:15 **DDGS and Pork Fat Quality**
Jerry Shurson, Department of Animal Science, University of Minnesota
- 9:30 **Avian-derived Antibodies in Disease Prevention**
Nicolas DiLorenzo, Department of Animal Science, University of Minnesota
- 9:45 **Group Feeding Dairy Calves**
Dennis Johnson, West Central Research and Outreach Center, University of Minnesota
- 10:00 **Feeding Organic Poultry**
Jacqueline Jacob, Department of Animal Science, University of Minnesota
- 10:15 *Break*
- 10:45 **Odor Control from Livestock Facilities**
Chuck Clanton, Department of Bioproducts and Biosystems Engineering, University of Minnesota
- 11:00 **Bio-Gas Generation from Livestock Wastes**
Jun Zhu, Southern Research and Outreach Center, University of Minnesota
- 11:15 **Impact of Gestation Housing on Sow Performance**
Sam Baidoo, Southern Research and Outreach Center, University of Minnesota
- 11:30 **Degussa Corporation Update**
- 12:00 p.m. *Lunch – Sponsored by Degussa Corporation*

68th Minnesota Nutrition Conference

and

University of Minnesota Research Update:
Modern Concepts in Livestock Production for 2007

Tuesday, September 18, 2007

Afternoon

68th Minnesota Nutrition Conference Symposium: Meeting the Energy Needs of Livestock in the Biofuel Age

- 1:00 p.m. **Welcome**
John Goihl, Agri-Nutrition Services, Inc. and Minnesota Nutrition Conference Co-Chair
- 1:15 **Energetics for the Practicing Nutritionist**
Bill Weiss, The Ohio State University
- 1:45 **Practical Aspects of Implementing an NE System for Swine**
Ruurd Zijlstra, University of Alberta, Canada
- 2:15 **Maximizing Energy Utilization for Poultry**
Craig Coon, University of Arkansas
- 2:45 *Break*
- 3:15 **Energy Sparing Effects of Ionophores in Ruminant Diets with Implications to Other Nutrients**
Ken McGuffey, McGuffey Dairy Consulting
- 3:45 **Feed Processing to Optimize Animal Performance**
Charles Stark, North Carolina State University
- 4:15 **Panel Discussion with Speakers**
- 4:45 *Adjourn*
- 5:00 – 7:00 *Reception – Sponsored by Crowne Plaza Minneapolis North*

68th Minnesota Nutrition Conference

Wednesday, September 19, 2007

Morning

8:00 a.m. *Registration - Coffee and Pastries*

RUMINANT SESSION

8:30 **Managing Sulfur Concentrations in Feed and Water**
Grant Crawford, University of Minnesota

9:10 **Endocrine Disruptor Residues in Feedlot and Dairy Waste Streams**
Shawn Archibeque, Colorado State University

9:50 *Break*

10:20 **Feeding to Meet Protein Fractions and Amino Acid Needs in Feedlot Cattle**
Alfredo DiCostanzo, University of Minnesota

11:00 **Metabolizable Protein and Amino Acid Nutrition of the Dairy Cow: Where are We in 2007?**
Charles Schwab, University of New Hampshire

11:45 **Diamond V Mills Update**

12:15 p.m. *Lunch - Sponsored by Diamond V Mills*

NON-RUMINANT SESSION

8:30 a.m. **Optimizing Skeletal Health: The Impact of Nutrition**
Mike Orth, Michigan State University

9:10 **Impact of Fat Source and Vitamin E on Egg Production and Egg Quality**
Robert Renema, University of Alberta

9:50 *Break*

10:20 **Analysis, Purchasing, and Utilization of Animal By-Products**
Paul Tillman, Ajinomoto Heartland LLC

11:00 **Will High Energy Costs Limit Synthetic Amino Acid Use in Non-Ruminant Diets?**
L. Lee Southern, Louisiana State University

11:45 **Diamond V Mills Update**

12:15 p.m. *Lunch - Sponsored by Diamond V Mills*

68th Minnesota Nutrition Conference

Wednesday, September 19, 2007

Afternoon

RUMINANT SESSION

- 1:15 p.m. **Maximizing the Potential of Dairy Rations through Feed Bunk Management and Design**
Trevor DeVries, University of Guelph
- 1:55 **Nutritional Strategies for Dairy Heifers to Achieve Target Growth Rates**
Pat Hoffman, University of Wisconsin
- 2:35 **Economics of Replacing Corn with Other Energy Sources in Ruminant Diets**
Norman St. Pierre, The Ohio State University
- 3:30 *Adjourn*
-

NON-RUMINANT SESSION

- 1:15 p.m. **Nutritional Genomics: A New Frontier of Livestock Nutrition?**
Jamie Matthews, University of Kentucky, Sponsored by Alltech
- 1:55 **Understanding Carcass Fat Quality: What Nutritionists Need to Know**
Eric Berg, North Dakota State University
- 2:35 **Nutritional Value of Glycerol for Non-ruminants**
Brian Kerr, US Department of Agriculture
- 3:30 *Adjourn*

University of Minnesota Research Update Session & Conference Speakers

University of Minnesota Research Update Session

Sam Baidoo

University of Minnesota
Southern Research and Outreach Center
Waseca, Minnesota

Brian Buhr

University of Minnesota
Department of Applied Economics
Saint Paul, Minnesota

Chuck Clanton

University of Minnesota
Department of Bioproducts and Biosystems
Engineering
Saint Paul, Minnesota

Nicolas DiLorenzo

University of Minnesota
Department of Animal Science
Saint Paul, Minnesota

Jacqueline Jacob

University of Minnesota
Department of Animal Science
Saint Paul, Minnesota

Dennis Johnson

University of Minnesota
West Central Research and Outreach Center
Morris, Minnesota

Jerry Shurson

University of Minnesota
Department of Animal Science
Saint Paul, Minnesota

Jun Zhu

University of Minnesota
Southern Research and Outreach Center
Waseca, Minnesota

Minnesota Nutrition Conference Speakers

Shawn L. Archibeque

Colorado State University
Fort Collins, Colorado

Eric P. Berg

North Dakota State University
Fargo, North Dakota

Craig N. Coon

University of Arkansas
Fayetteville, Arkansas

Grant Crawford

University of Minnesota
Extension Regional Center
Hutchinson, Minnesota

Trevor DeVries

University of Guelph
Kemptville, Ontario, Canada

Alfredo DiCostanzo

University of Minnesota
Department of Animal Science
Saint Paul, Minnesota

Patrick C. Hoffman

University of Wisconsin
Marshfield, Wisconsin

Brian J. Kerr

USDA-ARS-SOMMRU
Ames, Iowa

Ken McGuffey

McGuffey Dairy Consulting
Indianapolis, Indiana

Jamie Matthews

University of Kentucky
Lexington, Kentucky

University of Minnesota Research Update Session & Conference Speakers

Minnesota Nutrition Conference Speakers, Continued

Michael W. Orth

Michigan State University
East Lansing, Michigan

Robert A. Renema

University of Alberta
Edmonton, Alberta, Canada

Norman R. St-Pierre

The Ohio State University
Columbus, Ohio

Charles G. Schwab

University of New Hampshire
Durham, New Hampshire

L. Lee Southern

Louisiana State University
Baton Rouge, Louisiana

Charles Stark

North Carolina State University
Raleigh, North Carolina

Paul Tillman

Ajinomoto Heartland LLC
Buford, Georgia

William P. Weiss

The Ohio State University
Wooster, Ohio

Ruurd T. Zijlstra

University of Alberta
Edmonton, Alberta, Canada

68th Minnesota Nutrition Conference

and

University of Minnesota Research Update:
Modern Concepts in Livestock Production for 2007

September 18-19, 2007

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