

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Nebraska Beef Cattle Reports

Animal Science Department

2012

2012 Beef Cattle Report: Table of Contents

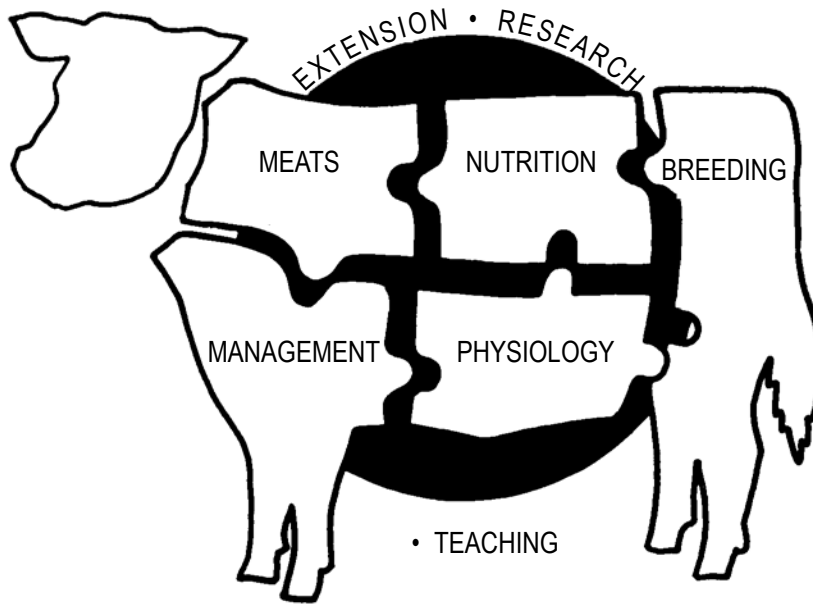
Follow this and additional works at: <http://digitalcommons.unl.edu/animalscinbcr>



Part of the [Animal Sciences Commons](#)

"2012 Beef Cattle Report: Table of Contents" (2012). *Nebraska Beef Cattle Reports*. 645.
<http://digitalcommons.unl.edu/animalscinbcr/645>

This Article is brought to you for free and open access by the Animal Science Department at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Nebraska Beef Cattle Reports by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.



Agricultural Research Division
 University of Nebraska Extension
 Institute of Agriculture and Natural Resources
 University of Nebraska–Lincoln

2012 Beef Cattle Report



Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska–Lincoln cooperating with the Counties and the United States Department of Agriculture. University of Nebraska–Lincoln Extension educational programs abide with the nondiscrimination policies of the University of Nebraska–Lincoln and the United States Department of Agriculture.

© 2011, The Board of Regents of the University of Nebraska. All rights reserved.

ACKNOWLEDGMENTS

Appreciation is expressed to the following firms, associations, or agencies who provided grant support for research in the beef cattle program.

ADM, Decatur, Ill.
Archer Daniels Midland, Columbus, Neb.
Cargill Animal Nutrition, Elk River, Minn.
Cargill Corn Milling, Blair, Neb.
Cattlemen's Beef Promotion & Research Board, Centennial, Colo.
DPI Global, Porterville, Calif.
Elanco Animal Health, Indianapolis, Ind.
Lone Creek Cattle Company, Lincoln, Neb.
Merck Animal Health, DeSoto, Kan.
Monsanto, St. Louis, Mo.
Nebraska Beef Council, Kearney, Neb.
Nebraska Cattlemen Research and Education Foundation,
Lincoln, Neb.
Nebraska Center for Energy Sciences Research, University of
Nebraska, Lincoln, Neb.
North Central Region, Sustainable Agriculture Research &
Education Program, USDA

Nebraska Corn Board, Lincoln, Neb.
Pfizer Animal Health, New York, N.Y.
Poet Nutrition, Sioux Falls, S.D.
The Beef Checkoff, Centennial, Colo.
University of Nebraska Program of Excellence Funding
University of Nebraska UCARE (Undergraduate Creative
Activities and Research Experiences) Program
USDA Animal Health Research and Disease Program
USDA-CSREES Grant # 2005-55101-16369, Managed Ecosystems
USDA/NIFA Nebraska Animal Health Funds
USDA NRCS Conservation Innovation Grant
USDA Ovarian Function in Ruminants NE 1027 Regional
Research Project
USDA Ruminant Reproduction W112 Regional Research Project
USDA W2177 Enhancing the Competitiveness and Value of U.S.
Beef Regional Research Project

Appreciation is also expressed to the following firms who provided products or services

American Angus Association, St. Joseph, Mo.
Archer Daniels Midland, Columbus, Neb.
American Gelbvieh Association, Westminster, Colo.
American Hereford Association, Kansas City, Mo.
American Simmental Association, Bozeman, Mont.
American-International Charolais Association, Kansas City, Mo.
Boehringer Ingelheim Vetmedica, St. Joseph, Mo.
Cargill Corn Milling, Blair, Neb.
Cargill Meat Solutions, Wichita, Kan./Schuyler, Neb./High River,
Alberta, Canada
Colorado Premium, Greeley, Colo.
DPI Global, Porterville, Calif.
Dixon County Feedyard, Allen, Neb.
Elanco Animal Health, Indianapolis, Ind.
Greater Omaha Pack, Omaha, Neb.
Green Coker Seed, Bladen, Neb.

Green Plains, Central City, Neb.
Iowa Limestone, Des Moines, Iowa
iQ Foods, Fayetteville, Ark.
Kalsec, Inc., Kalamazoo, Mich.
Lallemand Animal Nutrition, Milwaukee, Wisc.
Liquid Feed Commodities, Fremont, Neb.
Merck Animal Health, DeSoto, Kan.
North American Limousin Foundation, Centennial, Colo.
Novus International, Inc., St. Charles, Mo.
Pfizer Animal Health, New York, N. Y.
Pharmacia Upjohn, Kalamazoo, Mich.
PharmAgra Labs, Inc., Brevard, N.C.
Red Angus Association of America, Denton, Tex.
Rex Ranch, Ashby, Neb.
Tyson Foods, Inc., Dakota City, Neb. & Lexington, Neb.
USDA Meat Grading and Certification Branch, Omaha, Neb.

Appreciation is also expressed to the following research technicians, unit managers, and crew involved in the research programs at our various locations in Nebraska.

Agricultural Research & Development Center, Ithaca

Eugene Anderson	Suzanne Hermanski	Justin Moore
Jeff Bergman	Michael Luben	Chuck Rezac
Lyle Blase	Steve Maser	Ken Rezac
Dirk Burken	Allison Miller	Mark Schroeder
Will Griffin	Karl Moline	Matt Sillivan

Gudmundsen Sandhills Laboratory, Whitman

Andy Applegarth	Jay Holthus
C.R. Jewell	Jackie Musgrave
John Nollette	

West Central Research & Extension Center, North Platte

Mike Kirby	T. L. Meyer	Jim Teichert
------------	-------------	--------------

Dalbey Halleck Farm

Mark Dragastin

Animal Science Department, Lincoln

Nerissa Ahern	Tommi Jones	William Pohlmeier
Crystal Buckner	Jill Kerl	Kelsey Rolfe
Vanessa Brauer	Renee McFee	Cody Schneider
Ruth Diedrichsen	Clyde Naber	Calvin Schrock
Jana Harding	Ningxia Lu	Jacqueline Smith
Brent Johnson	Brandon Nuttelman	

Panhandle Research & Extension Center, Scottsbluff

Nabor Guzman	Paul McMillen
Stephanie Furman	Doug Pieper
Jacob Hansen	

Northeast Research & Extension Center, Norfolk

Kevin Heithold	Lee Johnson	Leslie Johnson
----------------	-------------	----------------

Electronic copies of Nebraska Beef Reports and Summaries available at:
<http://beef.unl.edu>, click on reports.

Table of Contents 2012 Nebraska Beef Cattle Report

Cow/Calf

Supplementing Gestating Beef Cows Grazing Cornstalk Residues	5
Effect of Corn Stalk Grazing and Baling on Cattle Performance and Irrigation Needs.....	8
Nutritive Value and Amount of Corn Plant Parts	11
Wheat Straw, Distillers Grains, and Beet Pulp for Late Gestation Beef Cows.....	13
Influence of Weaning Date and Pre-partum Nutrition on Cow-Calf Productivity.....	15
Effect of Calving Period on Heifer Progeny	18
Evaluating Conventional and Sexed Semen in a Commercial Beef Heifer Program	20
Late Gestation Supplementation Impacts Primiparous Beef Heifers and Progeny.....	22
Nutritional Regime and Antral Follicle Count Impact Reproductive Characteristics in Heifers.....	24
Vascular Endothelial Growth Factor A(VEGFA) in Ovulatory Follicles	26
Oocyte mRNA and Follicle Androgen Levels Associate with Fertility	28
The Simmental Breed: Population Structure and Generation Interval Trends.....	30
Association of Myostatin on Performance and Carcass Traits in Crossbred Cattle	32
Economic Analysis of Keeping a Nonpregnant Cow	35
Effect of Post-Weaning Heifer Development System on Average Daily Gain, Reproduction, and Adaptation to Corn Residue During First Pregnancy	37
Impact of Post-Weaning Beef Heifer Development System on Average Daily Gain, Reproduction, and Feed Efficiency	39
Heifer Development: Think Profit, Not Just Cost or Revenues	41
Beef Heifer Development and Profitability	43

Growing

Research Results are Dependent on Accurate Cattle Weights	45
Forage Availability and Quality of No-till Forage Crops for Grazing Cattle.....	47
Strategies of Supplementing Dried Distillers Grains to Yearling Steers on Smooth Bromegrass Pastures	49
Comparison of Feeding Dry Distillers Grains in a Bunk or on the Ground to Cattle Grazing Subirrigated Meadow.....	51
Byproducts with Low Quality Forage to Grazing Cattle.....	53
Effects of Forage Type, Storage Method, and Moisture Level in Crop Residues Mixed with Modified Distillers Grains	55
Effect of Storage Method on Nutrient Composition and Dry Matter Loss of Wet Distillers Grains.....	58
Spoilage of Wet Distillers Grains Plus Solubles and Feed Value.....	61

Finishing

Increasing Levels of Condensed Distillers Solubles and Finishing Performance.....	64
Feeding Condensed Distillers Solubles in Finishing Diets Containing WDGS or Synergy	66
Metabolism of Finishing Diets Containing Condensed Distillers Solubles and WDGS	68
Wet Distillers Grains and Ratios of Steam-Flaked and Dry-Rolled Corn	70
Effect of Corn Processing on Feedlot Steers Fed Sugarbeet Pulp	73
Distillers Grains with Solubles and Ground Ear Corn in Feedlot Diets	75
Feeding Field Peas in Finishing Diets Containing Wet Distillers Grains Plus Solubles.....	77
Ruminal Degradable Sulfur and Hydrogen Sulfide in Cattle Finishing Diets	79
Meta-Analysis of the Effect of Dietary Sulfur on Feedlot Health.....	82
Complete-feed Diet RAMP™ in Grain Adaptation Programs.....	85
Use of Complete-feed Diets RAMP™ and Test Starter for Receiving Cattle.....	87
Effects of RAMP on Feed Intake and Ruminal pH During Adaptation to Finishing Diets.....	89
Potassium for Feedlot Cattle Exposed to Heat Stress	91
Feeding Modified Distillers Grains with Solubles and Wet Corn Gluten Feed (Synergy) to Adapt Cattle to Finishing Diets	94
Using Beet Pulp to Adapt Cattle to Finishing Diets	96
Effect on Performance and Nutrient Mass Balance of Feeding Micro-Aid in Wet Distillers Grains Plus Solubles Diets	98
Effects of Barley Diets with Distillers Grains Plus Solubles on Feedlot Performance and N and P Balance	101
Feedlot Manure Utilization as Influenced by Application Scheme and Diet.....	104

Chemical Treatment of Low-quality Forages to Replace Corn in Cattle Finishing Diets	106
Reducing Particle Size Enhances Chemical Treatment in Finishing Diets.....	108
Factors Influencing Profitability of Calf-Fed Steers Harvested at Optimum Endpoint	110
Grazing Supplementation and Subsequent Feedlot Sorting of Yearling Cattle	112
Impact of Sorting Prior to Feeding Zilpaterol Hydrochloride on Feedlot Steers	115

Beef Products

Condensed Distillers Solubles and Beef Shelf Life	119
Effects of Antioxidants on Beef in Low and High Oxygen Packages	122
Dietary Antioxidants and Beef Tenderness During Retail Display in High O ₂	124
Effects of Freezing and Thawing Rates on Tenderness and Sensory Quality of Beef Subprimals	127
Subprimal Freezing and Thawing Rates Affect Beef at Retail.....	130
Statistics Used in the Nebraska Beef Report and Their Purpose	133