



Meat Messenger

North Dakota State Meat and Poultry Inspection Program

2013 Quarter 3

Direct farm marketing guide now available

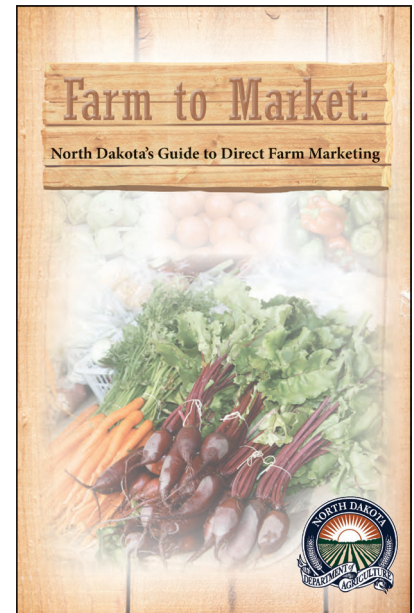
The new edition of “Farm to Market: North Dakota’s Guide to Direct Farm Marketing” is now available from the North Dakota Department of Agriculture (NDDA).

“The guide has been completely revised and updated to reflect changes in laws and regulations pertaining to direct sales of farm products,” said Agriculture Commissioner Doug Goehring. “People who market their products directly through farmers markets, roadside stands, pick-your-own gardens and community supported agriculture (CSAs) or who sell directly to restaurants and food services will find this a valuable reference.”

The 36-page booklet contains information on types of direct marketing, taxes, insurance, health regulations and safety codes. The specific health requirements of different cities and health districts regarding food sales are also provided.

Free copies of “Farm to Market: North Dakota’s Guide to Direct Farm Marketing” are available from the North Dakota Department of Agriculture, 600 E. Boulevard Ave., Dept. 602, Bismarck, ND 58505-0020; telephone (701) 328-2231 or (800) 242-7535; email ndda@nd.gov.

The guide is also available on NDDA’s website at www.nd.gov/ndda/files/resource/FarmToMarketGuide.pdf.



Industry reduces E. coli by 90%, but little progress with Salmonella

By Heather Smith Thomas, *Beef Magazine*

The beef industry’s stellar record in reducing E. coli contamination hasn’t extended to Salmonella. But the industry is working on it.

The U.S. beef industry has done a tremendous job of dealing with carcass contamination involving E. coli. In fact, E. coli O157 positives in ground beef sampling have dropped by more than 90% in the last decade.

The same drop hasn’t been seen in incidence of Salmonella in ground beef, however, says Guy Loneragan, Texas Tech University professor of food safety and public health.

“We haven’t seen a decrease in human incidence of Salmonella. Admittedly there are many sources of Salmonella

- in poultry, eggs, etc. - but the beef industry is asking itself why our intervention can so effectively manage E. coli O157, and not Salmonella.”

“The animal’s body does what it’s supposed to – it localized and contains the invader in the lymph nodes. The tricky part is that Salmonella appears to have evolved the ability to survive within the lymph node that is designed to kill it,” said Dayna Harhay, a microbiologist and molecular biologist with the Meat Safety and Quality Research Unit in Clay Center, NE.

Focusing on lymph nodes: Salmonella is an occasional disease problem in cattle. However, in the past few years, researchers have been investigating the discovery of what is probably an old issue - Salmonella in healthy animals’ lymph nodes at the time of slaughter.

Meat Messenger

is published by the
**North Dakota
Department of Agriculture**

Agriculture Commissioner
Doug Goehring

Livestock Services Program Manager
Wayne Carlson

Director of Meat Inspection
Andrea Grondahl, DVM

Administrative Assistant
Becky Gietzen

Senior Meat Inspectors
Cody Kreft
Shaun Quissell

Compliance Officer/Meat Inspector
Dave Slack

Scientific Information Coordinator
Nathan Kroh

Meat Inspectors
Shawn Steffen
Heather Andersen
Cami Metzger *Certified Grader
Joshua Epperly
Whitney Vogel
Joslyn Roadstrom

Assistant/Relief Inspector
Julie Nilges *Certified Grader



Please address all correspondence to:

**State Meat Inspection
North Dakota Dept. of Agriculture**
600 E. Boulevard Ave., Dept. 602
Bismarck, ND 58505-0020
(701) 328-2231
(800) 242-7535
FAX: (701) 328-4567

www.nd.gov/ndda
ndda@nd.gov

Regulation reminder

North Dakota Administrative Code Chapter 7-13-08-02: Regulatory enforcement action.

Regulatory enforcement action: The commissioner shall take regulatory control, withholding, or suspension action when necessary, in accordance with the provisions of title 9, Code of Federal Regulations, part 500, except that any complaint or hearing when allowed or required under such action will be conducted in accordance with North Dakota Century Code chapter 28-32.

History: Effective August 1, 2000

General Authority: NDCC 36-24-24

Law Implemented: NDCC 36-24-18, 36-24-26

What is Title 9 Code of Federal Regulations (CFR) part 500? – Rules of Practice.

Rules of Practice contain: (a)Regulatory control action, (b)Withholding action, and (c)Suspension.

The definition of “regulatory control action” is the retention of product, rejection of equipment or facilities, slowing or stopping of lines, or refusal to allow the processing of specifically identified product. This is further defined in Sec. 500.2 Regulatory Control Action.

What Sec. 500.2 Regulatory Control Action means:

The North Dakota Meat and Poultry Inspection Program, in accordance with 9 CFR 500.2, may take regulatory control action because of:

- (1) Insanitary conditions or practices;
- (2) Product adulteration or misbranding;
- (3) Conditions that preclude inspection personnel from determining that product is not adulterated or misbranded; or
- (4) Inhumane handling or slaughtering of livestock.

If a regulatory control action is taken, the program employee will immediately notify the establishment orally or in writing of the action and the basis for the action.

An establishment may appeal a regulatory control action, as provided in §§306.5 and 381.35 of chapter 9 Code of Federal Regulations.

In-plant program personnel may attach retain or reject tags in the area or to the equipment where the non-compliance is found, and immediately notify the establishment of the findings and the control taken. Establishments are to understand that retain and reject tags cannot be removed by anyone except the program personnel. Continued failure to meet regulatory requirements can lead to enforcement actions as described in North Dakota Administrative Code Chapter 7-13-08-02: Regulatory enforcement action, and title 9 CFR part 500.4, which will be describe in future segments of Rules of Practice.

Livestock development specialists named

Agriculture Commissioner Doug Goehring has appointed Nathan Boehm and Amber Boeshans as livestock development specialists in the North Dakota Department of Agriculture.

“Livestock is an important part of North Dakota’s agricultural economy, and has the potential to play a much bigger role,” Goehring said. “The industry is fortunate to now have these two experienced livestock professionals to help it grow.”

A Mandan native, Boehm graduated from North Dakota State University with a degree in animal science and agronomy. He operated a dairy farm west of Mandan for 31 years. A former member and president of the State Board of Animal Health, Boehm is the current president of the Morton County Farm Bureau.

Boeshans is a Bismarck native and NDSU graduate in animal science. She worked for a South Dakota dairy farm and as an insurance agent specializing in dairy insurance. Returning to North Dakota, she managed a dairy farm near Minot. She is secretary-treasurer for the North Dakota chapter of the American Dairy Association.

“Nathan and Amber will help North Dakota dairy and livestock producers develop and enhance the production, processing and marketing of their products,” Goehring said. “They will also provide technical support, research, and contact information to commodity groups, individual producers, processors and producer cooperatives to enhance profitability of the dairy and livestock industries.”



Boehm



Boeshans

Goehring said Boehm and Boeshans will work directly with slaughter plants, feedlots, cheese producers, dairy farms, corn growers and ethanol plants, and investor programs. They will also field inquiries about other facets of livestock production.

“South Dakota has successfully enhanced its livestock industry, particularly the dairy sector, bringing in thousands of dairy cattle,” Goehring said. “The increase in milk production led Bel Brands USA, the makers of Laughing Cow, Mini Babybel and Boursin Cheese, to announce plans for a \$100 million cheese manufacturing plant in Brookings. Nathan and Amber’s knowledge of similar programs will be a resource to entice industry to come to North Dakota and expand our livestock industry.”

For questions regarding livestock development, contact either Amber Boeshans at 701-328-1496 or aboeshans@nd.gov or Nathan Boehm at 701-328-1495 or nboehm@nd.gov.

Kroh assigned as scientific information coordinator

Nathan Kroh is the new scientific information coordinator in the North Dakota Meat and Poultry Inspection Program.

A 2009 graduate of North Dakota State University with a degree in food science and a minor in food safety, Kroh worked as quality assurance intern at Cloverdale Foods, where he was responsible for HACCP verification procedures, environmental and ready-to-eat product microbiological sampling, pre-



operational sanitation monitoring and other tasks. In his new position, Kroh is available to state-inspected slaughter and processing plants, custom exempt slaughter and custom exempt processing plants to answer questions regarding meat safety, HACCP

recordkeeping, inspection protocol, and any other related issues.

Plants planning to go state-inspected, plants planning to go into the Cooperative Interstate Shipping Program, or plants that just want to understand food safety better are encouraged to consult with Kroh to ensure a wholesome product.

Contact Kroh at 701-328-4767 or nkroh@nd.gov or Nathan.Kroh@fisi.usda.gov.

Microorganisms that spoil meat: A review

By Jeff J. Sindeler

Microorganisms can be considered our friends, our foes – and sometimes our enemies. But, since they are everywhere, in the environment, in food and even within our bodies, we must learn how to co-exist with them and live in harmony when at all possible.

Microorganisms can be divided into 4 groups including bacteria, yeasts, molds, and viruses. Bacteria account for nearly all important discussion on this topic since yeasts are far less common, are relatively poor competitors, and need oxygen for growth thus generally are easier to control. Further, by definition, molds and viruses aren't typically classified as spoilage microorganisms.



Non-pathogenic bacteria serve many important purposes in the food industry. They allow us to manufacture and enjoy many foods such as bread, wine, cheese, beer, sauerkraut and fermented sausages. They provide a safeguard to consumers for preventing the consumption of foods with spoilage bacteria levels high enough to provide sickness by their mechanistic “high level” warning signs including off odors, discoloration, and even slime formation. They can even serve as a safeguard in helping prevent pathogenic bacteria-related illness but forcing consumers to discard “spoiled” products having high levels of spoilage bacteria that could also have dangerously high levels of pathogenic bacteria.

Types and classifications

There are countless different species and strains of bacteria that are involved with food spoilage. However, simply put, bacteria that cause meat and poultry spoilage are those bacteria that are associated with animal agriculture, the meat industry itself, and the people involved with the meat industry (aka, employees).

Bacteria can be classified a number of different ways such as their ideal growth temperature (i.e. psychrotrophs, 32-86°F, mesophiles, 68-113°F, thermophiles, 113-149°F), their oxygen requirements (i.e. aerobic, anaerobic, facultative), their tolerance for acidity (pH), their free water (water activity) requirement or even their generation time (time needed for them to double).

This information is both valuable and useful in determining control measures. Although, there are countless bacteria that can cause product spoilage, there are clearly groups (or families) of spoilage bacteria that are more commonly affiliated with creating spoilage challenges for certain types of meat and poultry products. Factors that affect which spoilage bacteria are present and can grow include the type of packaging system, presence and level of salts (including sodium nitrite) and storage temperature conditions. Thus understanding what bacteria is present, and why, in a given product is important.

For example, *Pseudomonas* seems ubiquitous in the meat industry and is a primary spoilage bacterium targeted to control for aerobic packaged products. Several lactic acid bacteria including *Lactobacillus*, *Pediococcus*, *Streptococcus*, and *Leuconostoc* favor anaerobic conditions and are commonly identified as the major culprits of spoilage in vacuum packaged products.

Further, *Enterobacteriaceae* bacteria can commonly be considered a problem for fresh and uncured meat products, especially cooked, uncured and vacuum packaged poultry. Although the intention of this review is not to provide specific detail and description of all spoilage bacteria identified in the meat industry, it is important to note that 1) controlling some with certain growth requirements usually controls all other with similar growth requirements; and 2) many have

continued on page 5

similar by-products of growth which creates visual and organoleptic changes such as color loss (i.e. browning, greening, etc), off odors, flavor changes such as souring, and the production of undesirable physical features such as slime.

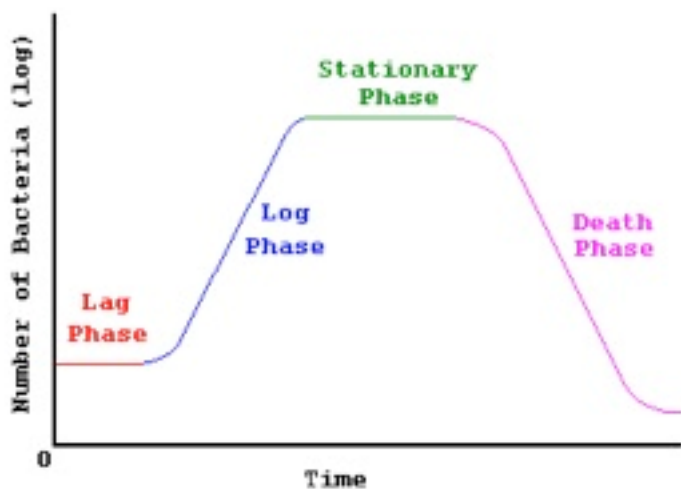
Bacterial control

Spoilage bacteria control is most effective when viewing the occurrence and related challenges both holistically and narrowly. Impossible to avoid is the presence of bacteria (some of which cause spoilage) everywhere.

Impossible to achieve is the removal of all bacteria from countless physical locations including livestock entering harvest facilities, meat and poultry processing facilities themselves (i.e. walls, ceilings, floors, etc.), equipment and utensils within facilities, or employees and people working in these facilities.

What can be achieved is an understanding of how to limit contamination, growth, and the eventual reduction of product spoilage.

Steps for controlling spoilage bacteria



Step one is a brief review and understanding of the growth of bacteria. The above figure reminds us of the various life stages of bacteria including the lag, log, stationary and death phases. Our interests for bacteria control should focus on maximum extension of the lag phase prior to eventual detrimental log phase growth.

Step two is the realization that spoilage bacteria are all around us, and without the use of sterilization in

our operations and in our products it is impossible to eliminate the phenomenon of meat and poultry spoilage.

Step three is to understand what tools we have to most effectively control the growth of any spoilage bacteria present. This step includes careful thought about the general growth requirements of the bacteria we are interested in controlling followed by an evaluation of the systems of control that may or may not be in place (i.e. is proper vacuum taking place to ensure a proper anaerobic environment with that product package?). Proper refrigerated temperature control, proper sanitation, prevention of cross-contamination, and antimicrobial inclusion would all be considered top-level tools.

Step four includes evaluating the ability to lessen the introduction of spoilage bacteria in your products. Evaluation of levels of bacteria in raw materials, effectiveness of sanitation procedures, and the ability to control/prevent contamination via contact surface-to-product, product-to-product, worker-to-product, or even non-contact surface-to-worker-to product are critically valuable. For further processing, an evaluation of effectiveness to reduce spoilage bacterial to ideal levels during heating and post-process contamination potential and prevention processes are also critical.

Conclusion

Valuable for helping control the bacteria that causes spoilage is what is already known relative to controlling pathogenic bacteria. Although exact patterns for reduction and growth control are not always found between pathogenic and non-pathogenic bacteria, generally if systems are in place for effective pathogenic bacteria control, those same systems will provide a strong spoilage bacterial control as well.

However, since some spoilage bacteria strains can actually be more difficult to control than some pathogenic strains, ramping up a spoilage bacteria control program can offer an overarching benefit to food safety of those products too.

Source: www.meatingplace.com

FDA defines “gluten-free” for food labeling

The U.S. Food and Drug Administration published a new regulation defining the term “gluten-free” for voluntary food labeling.

This new federal definition standardizes the meaning of “gluten-free” claims. It requires that a food must meet all of the requirements of the definition, including that the food must contain less than 20 parts per million of gluten. The rule also requires foods with the claims “no gluten,” “free of gluten,” and “without gluten” to meet the definition for “gluten-free.”

Food manufacturers will have a year after the rule is published to bring their labels into compliance with the new requirements.

“The term “gluten” refers to pro-



teins that occur naturally in wheat, rye, barley and cross-bred hybrids of these grains. In people with celiac disease, foods that contain gluten trigger production of antibodies that attack and damage the lining of the small intestine. Such damage limits the ability of celiac disease patients to absorb nutrients and puts them at risk of other very serious health problems, including nutritional deficiencies, osteoporosis,

growth retardation, infertility, miscarriages, short stature, and intestinal cancers.

The FDA was directed to issue the new regulation by the Food Allergen Labeling and Consumer Protection Act (FALCPA), which directed FDA to set guidelines for the use of the term “gluten-free” to help people with celiac disease maintain a gluten-free diet.

The regulation has been published in the Federal Register. For more information go to: <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Allergens/ucm362510.htm>.

For your two cents: FSIS extends comment period

The Food Safety and Inspection Service (FSIS) is extending the comment period for the Federal Register proposed rule, “Descriptive Designation for Needle- or blade-tenderized (Mechanically Tenderized) Beef Products” until October 8, 2013. The Agency is taking this action in response to two requests made by trade associations.

SUPPLEMENTARY INFORMATION: On June 10, 2013, FSIS published a proposed rule in the Federal Register (78 FR 34589), ‘Descriptive Designation for Needle- or blade-tenderized (Mechanically Tenderized) Beef Products.’

In the rule, FSIS is proposing to require the use of the descriptive designation “mechanically tenderized” on the labels of raw or partially cooked needle- or blade-tenderized beef products, including beef products injected with marinade or solution, unless such products are destined to be fully cooked at an official establishment.

FSIS is proposing that the product name for such beef products include the descriptive designation “mechanically tenderized” and an accurate description of the beef component.

FSIS is proposing to require that labels of raw and partially cooked needle- or blade-tenderized beef products destined for household consumers, hotels, restaurants, or similar institutions include validated cooking instructions that inform consumers that these products need to be cooked to a specified minimum internal temperature, and whether they need to be held at that minimum temperature for a specified time before consumption, i.e., dwell time or rest time, to ensure that they are fully cooked.

For your “two cents”, go to <http://www.regulations.gov/>. Follow the on-line instructions at that site for submitting comments.

Classified ads

We are always looking for industry related items to advertise in the Meat Messenger. We post sale and want ads **FREE**. If you would like to put something in the Meat Messenger classifieds contact Julie Nilges at 701-204-3248 or e-mail description with contact information to jnilges@nd.gov.

Sipromac one truck smokehouse: Smokehouse has a Juno microprocessor and liquid smoke attachment. Included are two trucks and many sticks and screens. \$20,000, Please contact Calvin or Alex for more information at 701-743-4451. Located in Parshall.

True Brand cooler: Cooler has two sliding doors and was manufactured in 2001. \$1,000, Please contact Calvin or Alex for more information at 701-743-4451. Located in Parshall.

One-quart plastic containers with lids: Containers and lids are brand new, never been used. \$20 per lot of 50, Please contact Calvin or Alex for more information at 701-743-4451. Located in Parshall.

Prairie Packing Inc.: Slaughter and processing plant in Williston, ND. USDA #7644. 10.43 acres of land with 20,000 sq. ft. building and garage. 15,000 sq. ft. is leased. City sewer and water. Work is divided into 70% rancher/producer and 30% retail sales. 10 employees. Please contact Dave Slais for more information at dslais04@live.com.

Slaughter/processing business: Located near Maddock, ND. Fully operational meat processing facility, all equipment and supplies included. Currently custom-exempt, with option for retail and/or state inspected status, many equipment/facility upgrades last 4 years. Very strong customer base. Please contact Denise for more information at: 701-438-2334.

Walk-in freezer and components: Three phase Copeland compressor Hp p62 Freon, new 2005. Model 4RA3-100A-TSK-800, serial 05A66497R. Single phase Bohn cooling unit model 2402B serial DCD4540. Larkin single phase outside evaporator. Walk-in freezer with shelves/baskets, sharp freeze shelves & cooling unit, has 4-glass doors, free standing unit, walls snap together. Please contact Denise for more information at: 701-438-2334. Located in Esmond.

Berkel Commercial Automatic Meat Slicer: Newly reconditioned. For price or more information contact Larry Brenno at 701-996-2733. Located in Sheyenne.

Dean's Meat Market, Dickinson, ND: Turnkey business. Well established, custom-exempt processing with retail meats, cheeses and 30 different homemade sausages, recipes included. Large, fresh, retail meats counter and retail freezers. Includes all the working equipment, mostly stainless steel. Also includes walk-in coolers and freezer. Building not included but possibly negotiable. For more information, call Dean Evenson at 701-483-8461 and see the website at www.deansmeatmarket.com.

Find us on Facebook

The new Facebook page benefits both consumers and processors with facts about inspection, rules for producers who want to direct market their products, and tips for safely preparing meat and poultry products.

Please check out our new page and feel free to ask a question by signing into Facebook and searching for North Dakota Meat and Poultry Inspection Program.



North Dakota Meat and Poultry Inspection Program

34 likes · 1 talking about this · 0 were here

Government Organization
The State Meat Inspection Program was enacted by the 1999 Legislature to increase the opportunities for meat processors and livestock producers in the state of North Dakota.

About · Suggest an Edit

Photos · Likes · Map

Meat and Poultry Inspection Program Facebook Page

In this Meat Messenger

- Direct farm marketing guide now available
- Industry reduces E. coli by 90%, but little progress with Salmonella
 - Regulation Reminder
 - Livestock development specialists named
 - Kroh assigned as scientific information coordinator
 - Microorganisms that spoil meat: A review
 - FDA defines “gluten-free” for food labeling
 - For your two cents: FSIS extends comment period
 - Classified Ads

“Equal Opportunity in Employment and Services”

www.nd.gov/nda