



Meat Messenger

North Dakota State Meat and Poultry Inspection Program

2014 Quarter 3

NDDA hosts state fair beef snack stick contest

by Nathan Kroh

L&M Meats of Grand Forks won the first Beef Snack Stick Contest sponsored by the North Dakota Department of Agriculture (NDDA) at the 26th annual Pride of Dakota-KMOT Day at the 2014 State Fair in Minot.

NDDA presented L&M Meats with a certificate to display in their shop.

The contest was close with five entrants – L&M Meats, Grand Forks; Edgeley Meat Processing, Edgeley; Maple Valley Meats, Enderlin; Reister Meats and Catering, Streeter, and Uncle Larry's Beef Shtix, Fargo – setting their products before the public in a blind taste test.

Tasters were asked to sample each beef stick and vote for their favorite. After casting their ballots, voters received a card identifying the products and their makers. No two beef sticks were alike. Comments were almost entirely positive, and the voting was tight.

Thanks to the participating companies. The event was a success in promoting high-quality North Dakota-made product. Plans are already underway for a second annual contest next year.

For information about the contest, contact Jamie Good, NDDA local foods specialist, at (701)328-2659 or jgood@nd.gov.



FSIS announces dollar limitations on products for exemption

The Food Safety and Inspection Service (FSIS) has announced the dollar limitations on the amount of meat and meat food products, poultry, and poultry products that a retail store can sell to hotels, restaurants, and similar institutions without disqualifying itself for exemption from Federal inspection requirements. In accordance with FSIS's regulations, for calendar year 2014, the dollar limitation for meat and meat food products is being increased from \$69,600 to \$70,400 and for poultry products from

\$54,500 to \$57,100. FSIS is changing the dollar limitations from calendar year 2013 based on price changes for products evidenced by the Consumer Price Index.

Source: Federal Register Volume 79, Number 113 (Thursday, June 12, 2014) [Pages 33718-33719] From the Federal Register Online via the Government Printing Office [FR Doc No: 2014-13795]

What would you like to read in the next issue?

The Meat Messenger is your newsletter. If you like the content, please feel free to share this issue with your employees, your livestock producers and customers. We welcome any questions, comments, or suggestions for future topics. Please contact **Nathan Kroh** at nkroh@nd.gov or 701-328-4767 or **Julie Nilges** at jnilges@nd.gov or 701-204-3248.

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Constituent Update

The Cooperative Interstate Shipment (CIS) program Web page is now available at <http://www.fsis.usda.gov/cis>.

The page is a comprehensive site that offers the following information:

- How the CIS program works;
- How eligible state-inspected establishments can apply to participate in the program;
- How establishments can broaden market share with their products produced under the federal mark of inspection;
- How establishments can remain in their respective State Meat and Poultry Inspection program;
- Valuable information for State Meat and Poultry Inspection program officials; and
- A listing of additional resources to aid users with the overall process.

For more information about the CIS program, contact Nathan Kroh at 701-328-4767 or at nkroh@nd.gov.

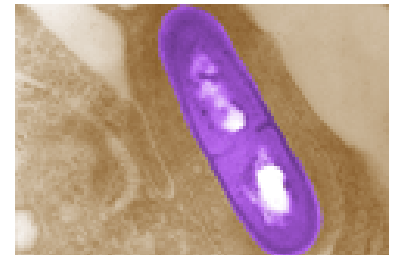
The FSIS Small Plant Help Desk, Monday through Friday, from 8 a.m. - 6 p.m., ET at 1-877-374-7435 or at InfoSource@fsis.usda.gov.



Did you know?

Over one million people get sick from eating food contaminated with *Salmonella*, which causes more hospitalizations and deaths than any other germ found in food and \$365 million in direct medical costs annually.

Source: www.cdc.gov/vitalsigns/foodsafety/?s_cid=bb-vitalsigns-127



In 2011, 47% of raw chicken samples were positive for *Campylobacter*. With an infective dose of <500 cells, a single drop of contaminated chicken juice would be more than enough to make a person sick. Over two million cases of *Campylobacter* infections are reported each year, with countless other infections going undocumented.

Source: www.cdc.gov/nczved/divisions/dfbmd/diseases/campylobacter/#prevent



Basic elements of effective food plant cleaning and sanitizing

Part 3 of 3

In the last two issues of the Meat Messenger, Rory Redemann explained the basic elements of a good sanitation program and the seven steps necessary for successful daily implementation of that sanitation program. The following is the third and final part of effective plant cleaning.

By Rory Redemann

The fourth basic element of an effective cleaning and sanitizing program is periodic sanitation, which involves two practices that, when performed from time to time, provide an added measure of assurance. The first is to periodically tear down equipment for better access. It is a good idea to periodically reevaluate existing equipment from a sanitary design perspective. Do the daily cleaning protocols address all potential risks? Have all potential risks been identified through a sanitary design review? By performing at some frequency a further level of tear down on existing equipment, the operator is able to identify and address any challenge areas, create greater accessibility and verify that there is an effective control in place.

The second periodic sanitation practice is the application of steam or dry heat to equipment at surface temperatures necessary to destroy undesirable microorganisms or potential growth niches. The heat method offers an advantage over chemicals in that the latter only works on surfaces in which they come in contact; if the equipment has cracks or crevices, the chemical is limited in what it will reach and in terms of adequate contact time. With the heat

treatment, there is no such limitation. As a guideline, steam heat of 165F for a minimum of 30 minutes and dry heat held at 165F for a minimum of four hours provides a fairly high level of confidence that there has been heat transfer to all components in the targeted area so that all surfaces are maintained at the minimum time-temperature relationship required to destroy microorganisms.

Of course, the effectiveness of the plant's sanitation practices must be verified to ensure that the production equipment and environment are indeed sanitary. Operators employ many kinds of verification, including physical, organoleptic and visual inspection methods, as part of ongoing environmental hygiene monitoring programs. Microbiological verification methods include many rapid and automated diagnostic screens, test kits and systems that can provide processors with near-real-time indicators about the cleanliness of surfaces, and some of the newer tests can identify target species of organisms. Portable ATP bioluminescence systems are widely used by industry to obtain immediate results about the sanitary or unsanitary condition of food plant surfaces. ATP results are followed up by more in-depth confirmation testing, such as aerobic plate count, which provides results in two to three days.

Creating a Culture of Clean

Ultimately, when sanitation personnel are well informed about the basics of controls for sanitary design limitations, have a solid working knowledge of sanitation GMPs that emphasizes how to limit cross-contamination opportunities and the importance of consistently following established

sanitation practices, and receive training on the benefits of continuous assessment and improvement, it is more likely that good adherence to sanitation polices will become the normal mindset in the plant. To ensure that the implementation of good sanitation practices becomes a daily habit among all individuals in the department, management will need to monitor, follow up and introduce some form of reinforcement training schedule. Without these, sanitation initiatives could be viewed as just a program-of-the-month.

On a larger scale, as effective cleaning and sanitizing protocols become habituated, the training can easily be used to train cross-functional staff, such as the QA supervisor or the plant engineer. It is not difficult to introduce this company-wide concept, but it is challenging to have a tangible impact on corporate culture. Increased, yet focused, training of all employees can serve as a way to institutionalize good sanitation practices and thereby advance the company's food safety goals.

Rory Redemann has been with Kraft for 10 years, the past six years in sanitation. He is a certified Kraft Sanitarian, which includes passing NEHA's Certified Food Safety Professional exam. His most recent assignment, as USDA Sanitation Programs Leader with the Oscar Mayer/Boca Foods division, involves oversight of USDA sanitation and environmental controls.

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Common problems that can kill your cooker

By Robert Maddock, Ph.D.

What's one of the first signs that your oven's air-handling system is malfunctioning? Color. A fresh air intake that isn't opening won't allow for adequate air movement within the oven, resulting in product that looks paler than usual. A malfunctioning exhaust fan causes the same problem, only in reverse. If the outlet is stuck in the closed position, products, especially smoked ones, will appear darker than normal.

Color changes notwithstanding, diagnosing air-handling problems can be difficult since most intakes and exhausts aren't readily accessible. Since broken linkages typically can't be detected by microprocessors, it may nevertheless be necessary to manually inspect those intakes and exhausts. Following are some rules of thumb to help keep that air flowing:

- Broken linkages are usually the result of normal wear and tear. Accordingly, they should be periodically checked during maintenance.
- Sticking dampers may be due to an electric or pneumatic failure. Happily, microprocessors usually detect such failures.
- The most common cause of failure is improper cleaning. Creosote build-up in natural smoke houses can cause damper failure, a problem operators can avoid with regularly scheduled cleaning.
- Exhaust fan failures can be caused by motor failure or broken linkages between the motor and fan. Exhaust fan failures aren't always easy to detect.

Problem: Temperature probe failure

Temperature probe failures are even more likely to cause problems with ovens than air-handling failures. In fact, such failures are the single most common source of oven trouble. How often does temperature probe failure occur? Failure rates among ovens with poor maintenance records can be as high as 20 percent, with the probe typically broken or out of calibration.

With dry bulb failures, oven temperature can't be measured correctly. With wet bulb failures: product may not reach the desired temperature or humidity levels may be different than expected. With product probe failures, final internal temperatures may not be met, a potential food safety hazard and HACCP records nightmare.

The following maintenance tips should help prevent

thermometer problems:

- Perform weekly checks against a calibrated thermometer.
- Calibrate probes once per month of normal use.
- Perform a full calibration once per year.
- Have probes that don't hold their calibration between checks serviced by a qualified technician or sent to the manufacturer for repair.

Ensure that wet-bulb conditions are as intended. Wet bulbs often fail because they are not "wet" enough. The bulb



must be surrounded by water, which is drawn by a sock from a reservoir. If the reservoir is empty or the sock is fouled and can't wick water to the thermometer, temperatures won't measure correctly.

Problem: Air oscillation failure or out of adjustment

How often does this occur? It isn't uncommon for up

to 10 percent of ovens or smokehouses to experience oscillation failure.

In general, the controller won't detect an air oscillation failure, though some newer ovens feature proximity switches that detect the problem. Extreme side-to-side color variation with the oven is also a sign of trouble.

Ovens that use a chain drive system to oscillate air vents have higher failure rates than direct drives, which are generally only available on newer ovens. Chain drives fail due to chain or sprocket breakage or wear or, less often, because of drive motor failure.

Here, periodic inspection of the chain and sprockets is the best form of preventative maintenance.

Source: <http://www.meatingplace.com/Industry/TechnicalArticles/Details/21>

Staff changes in meat inspection program

The North Dakota Meat and Poultry Inspection Program (NDMPIP) would like to congratulate Heather Andersen for her promotion to the senior inspector position.

Heather has been the northwestern inspector for nine years and replaces Shaun Quissell who is now the live-stock division director.

Her experience, knowledge of regulations and dedication to serving North Dakota makes her an excellent person for the senior inspector position. Her new role will include supervising meat inspectors working in her region. She will perform meat inspector performance reviews, food safety assessments at official establishments, train personnel, help develop protocols and correspond with meat plants. Please welcome Heather as she fills the position.

NDMPIP also welcomes its newest inspector- Kayla Wesoloski.

A graduate of University of Wisconsin-River Falls



Andersen



Wesoloski

with a Bachelor's in Animal Science, she joins the meat inspection crew to fill the position left from Heather Andersen's promotion to senior inspector. Prior to joining the NDMPIP she was a ranch hand at the Cannon River Ranch in South Dakota.

Recently moving to North Dakota, she enjoys riding her horses, roping, and ranching. Kayla having started in June, will be the northwestern meat inspector.

Pecan shell extracts may offer antimicrobial option

By Michael Fielding

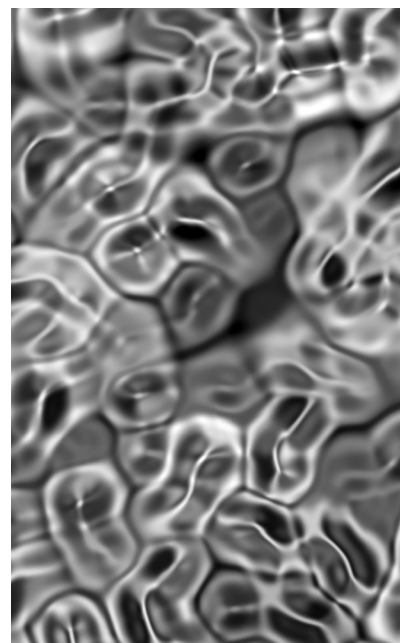
of Listeria.

A study in the Journal of Food Science published by the Institute of Food Technologists (IFT) showed that extracts from pecan shells may be effective at protecting meats, such as chicken, from Listeria growth.

Unroasted and roasted organic pecan shells were subjected to organic extraction processes to produce antimicrobials that were tested against Listeria spp. and L. monocytogenes bacteria. The effectiveness of pecan shell extracts were further tested using poultry skin to see how much these extracts inhibited bacterial growth

When this all-natural antimicrobial was tested on raw chicken skin it decreased the levels of pathogens by 100 times and at the same time reduced the levels of spoilage organisms by more than 1,000 times, greatly increasing the shelf life of the chicken. The researchers concluded that the natural pecan shell extracts may prove to be an effective alternative antimicrobial against food pathogens and supplement the demand for organic antimicrobials.

Source: <http://www.meatingplace.com/Industry/News/Details/47151>



The thermometer is your best food safety friend

By Julie Nilges

An accurate thermometer helps cooks prevent food-borne illness by letting them know that the food they are preparing, especially meat, has been cooked to a proper temperature.

Relying on color or firmness of the meat is no substitute for a thermometer reading. Many different food thermometers are available, including instant-read devices and models that can be left in the meat during the entire cooking process.

To ensure an accurate reading, insert the thermometer into the thickest or coolest part of the steak, chop or patty, pushing the thermometer into the top or side of the meat. Cook the food to the recommended minimum internal temperatures listed below before removing it from the heat source. Some people prefer their food to be cooked to higher temperatures.

When the proper temperature has been reached, transfer cooked meat to a clean plate with clean utensils to avoid cross contamination.

Betsy Booren, the American Meat Institute Foundation's chief scientist, has posted an informative video on YouTube, demonstrating the proper way to use a meat thermometer to ensure food safety in a variety of meat products, including hamburger, turkey burger, pork chops, steak, chicken breast, roast beef and roast chicken or turkey. Booren's video, together with other videos about meat processing and meat safety, can be found on the Meat News Network on YouTube.com or at meatsafety.org.

Using your thermometer to check for proper cooking temperature is not the only step to making safe foods. If there are too many bacteria present before cooking, the cooking step will not be able to eliminate all of the bacteria. It is important to handle food products properly during every step from the store to the table. The four guidelines to keep food safe include:

- **Clean**—Wash hands and surfaces often.
- **Separate**—Separate raw meat from other foods.
- **Cook**—Cook to the right temperature.
- **Chill**—Refrigerate food promptly.

Product	Minimum Internal Temperature & Rest Time
Beef, Pork, Veal & Lamb Steaks, chops, roasts	145 °F (62.8 °C) and allow to rest for at least 3 minutes
Ground meats	160 °F (71.1 °C)
Ham, fresh or smoked (uncooked)	145 °F (60 °C) and allow to rest for at least 3 minutes
Fully Cooked Ham (to reheat)	Reheat cooked hams packaged in USDA-inspected plants to 140 °F (60 °C) and all others to 165 °F (73.9 °C).
Product	Minimum Internal Temperature
All Poultry (breasts, whole bird, legs, thighs, and wings, ground poultry, and stuffing)	165 °F (73.9 °C)
Eggs	160 °F (71.1 °C)
Fish & Shellfish	145 °F (62.8 °C)
Leftovers	165 °F (73.9 °C)
Casseroles	165 °F (73.9 °C)

Source: www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/safe-minimum-internal-temperature-chart/ct_index

Classified ads

We are always looking for industry related items to advertise in the Meat Messenger. We post sale and want ads **FREE**. Contact Julie Nilges (701-204-3248) at jnilges@nd.gov or Nathan Kroh (701-328-4767) at nkroh@nd.gov with product description and contact information.

Sipromac one truck smokehouse: Smokehouse has a Juno microprocessor and liquid smoke attachment. Included are two trucks and many sticks and screens. \$20,000; **True Brand cooler:** Cooler has two sliding doors and was manufactured in 2001. \$1,000; **New one-quart plastic containers with lids:** \$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.

Walk-in freezer and components (4 items): (1) Three-phase Copeland compressor Hp p62 Freon, new in 2005. (Model 4RA3-100A-TSK-800, serial 05A66497R). (2) Single-phase Bohn cooling unit (Model 2402B serial DCD4540). (3) Larkin single-phase outside evaporator. (4) Walk-in freezer with shelves/baskets, sharp freeze shelves and cooling unit, has four-glass doors, free standing unit, walls snap together. Please contact Denise for more information at 701-438-2334. Located in Esmond.

Slaughter/processing business: Located in Esmond, 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 four years. Very strong customer base. Please contact Denise for more information at: 701-438-2334 or 701-351-1231.

Glass Door Freezer: Commercial freezer with 10 glass display doors. Made by Zero Zone, Waukesha WI. Unit comes in two pieces and includes the compressor. Any reasonable offer will not be refused. Call Larry at Brenno Meats, Sheyenne, ND. 701-996-2733 or cell 701-653-5071.

Find us on Facebook

Our 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 page or feel free to ask a question by signing into Facebook and searching for North Dakota Meat and Poultry Inspection Program.



The new Meat and Poultry Inspection Program Facebook Page

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