

A Newsletter about Livestock, Pastures and Rangeland
Edited by John M. Harper, Livestock & Natural Resources Advisor, Mendocino & Lake Counties

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John Harper's Livestock & Natural Resources Blog Updates April 28 — August 8, 2011

From time to time **The Grazer's Gazette** will reprint articles from John Harper's on-line blogs and postings to Facebook and Twitter. If you are not already on John's email distribution list and would like to get this information when it is posted, please contact the UC Cooperative Extension at 707-463-4495 or email cemendocino@ucdavis.edu with your current email address. Also, be sure to notify us of email or address changes so that you continue to receive timely information. You can also subscribe to John's Blog by going to our website at <http://cemendocino.ucdavis.edu>. Scroll down to one of the blogs. At the end, click on the RSS feed icon (see sample here) to subscribe.



Interstate Shipment of State-Inspected Meat & Poultry Finalized April 28, 2011

While California does not have state inspection of meat and poultry as it relies on federal inspection, the following news could impact our local markets.

USDA-FSIS has finalized how the new interstate shipment of state-inspected meat program will work. The original idea, included in the 2008 Farm Bill, was that because cooperative state meat and poultry inspection programs must, by law, be equal to or exceed the requirements of federal inspection, small (<25 full time employees), state-inspected processors should be able to ship product across state lines.



In a nutshell, here's how the program will work: first, the state must choose to participate; then state inspection personnel will be trained in enforcement of the federal meat and poultry acts (FMIA & PPIA); and then state-inspected processors can apply to participate. FSIS will oversee and enforce the program. Meat and poultry products produced under the program

will bear the federal mark of inspection for interstate distribution.

According to FSIS, only four states are currently interested in adopting the program: North Dakota, Ohio, Wisconsin, and Vermont.

Useful links:

NAPAN website: <http://www.extension.org/pages/55698/interstate-shipment-of-state-inspected-meat-and-poultry>

The Rules: <http://www.fsis.usda.gov/OPPDE/rdad/FRPubs/2008-0039F.pdf>

Press Release: http://www.fsis.usda.gov/News & Events/NR_041911_01/index.asp

Those interested in this program should be cautious about the many restrictions in the rule's fine print. Processors who aren't sure they can meet the federal/USDA requirements probably should not even consider the program as an option.

Adapted from the Niche Meat Processor Assistance Network (NMPAN).

New CAST Paper Examines Agricultural Air Issues May 5, 2011

The following is from CAST's press release and is important for livestock ranchers to read. Air quality is another issue that ranchers and livestock producers need to keep on top of and know the actual science.

CAST's new Issue Paper goes beyond the generalizations and accusations often associated with the air quality topic. Chaired by Dr. Larry Jacobson from the University of Minnesota, experts from six universities look at a wide scope of issues, from greenhouse gas emissions to the logistics of manure storage facilities. The U.S. Environmental Protection Agency is increasing efforts to monitor emissions from agriculture, so further research is important for all parties involved, and this paper provides solid, science-based information.

CAST Issue Paper #47, *Air Issues Associated with Animal Agriculture: A North American Perspective* was released on Thursday, May 5. Dr. Frank Mitloehner (right), one of the co-authors, referred to the paper at the Animal Agriculture Alliance Summit meeting in Washington, D.C. Mitloehner directs the Agricultural Air Quality Center at the University of California-Davis, and his presentation at the summit will focus on "The Truth About Sustainability—Debunking 'Livestock's Long Shadow'." The full paper can be downloaded by clicking on:

http://www.cast-science.org/publications/index.cfm/air_issues_associated_with_animal_agriculture_a_north_american_perspective?show=product&productID=20238



About CAST

CAST is a nonprofit 501 (c)(3) organization composed of scientific societies and many individual, student, company, nonprofit, and associate society members. CAST's Board is composed of representatives of the scientific societies, commercial companies, and nonprofit or trade organizations, and an executive committee. CAST was established in 1972 as a result of a 1970 meeting sponsored by the National Academy of Sciences, National Research Council.

The primary work of CAST is the publication of task force reports, commentary papers, special publications, and issue papers written by scientists from many disciplines. The CAST Board is responsible for the policies and procedures followed in developing, processing, and disseminating the documents produced. These publications and their distribution are fundamental activities that accomplish CAST's mission to assemble,

interpret, and communicate credible science-based information regionally, nationally, and internationally to legislators, regulators, policymakers, the media, the private sector, and the public. The wide distribution of CAST publications to nonscientists enhances the education and understanding of the general public.

CAST addresses issues of animal sciences, food sciences and agricultural technology, plant and soil sciences, and plant protection sciences with inputs from economists, social scientists, toxicologists or plant pathologists and entomologists, weed scientists, nematologists, and legal experts.

USDA Launches Lamb & Pig Dashboards—Market Information

May 9, 2011

Sheep and hog producers now have a similar market information tool that I blogged about several months back for cattle producers. The following describes the new tools.

The U.S. Department of Agriculture released new interactive dashboards which allow users to view data for slaughter swine and lamb markets in an easy-to-use, customizable way.

Dashboards provide users with quick, easy access to volume and price information that can be customized and downloaded. Dashboards are user-friendly visualization tools that bring market data to life and complement the existing data available through the Agricultural Marketing Service (AMS) Market News site.

"This will help display information in graphs, charts and other ways that are meaningful and useful to our customers," said Rayne Pegg, AMS administrator. "AMS collects and publishes a great deal of information under Livestock Mandatory Reporting, and these tools help manage, sort and view data in a way that creates perspective."

With the addition of these commodities, the dashboards now provide weekly data for all three species covered by Livestock Mandatory Reporting: cattle, hogs and sheep. They also include daily tickers for cattle and hogs (insufficient trading activity exists to support a daily

ticker for sheep). Modeled after the Cattle Dashboard, the new Swine and Lamb Dashboards include the same types of interactive features for querying and viewing slaughter hog and lamb market information, such as navigation tabs, maps, slide bars, drop down menus, graphs, tables, daily market tickers and download capabilities. For example, users can opt to view data on a national basis, or sort by regions.

To check out the Swine and Lamb Dashboards, visit the AMS Market News site at <http://marketnews.usda.gov/portal/lg>. A users' guide is also available that provides a feature-by-feature overview of the dashboard.



2011 Beef Quality Audit Underway, Producer Input Needed

June 11, 2011

This comes via Extension Specialist Jim Oltjen:

Cattle producers are being asked to provide their input to the 2011 National Beef Quality Audit by taking a short survey at www.cattlesurvey.com. The survey can be completed in approximately 10 minutes.

The 2011 NBQA, led by scientists from Colorado State University and Texas A&M University, is designed to

collect and analyze information from cooler audits in the packing sector, face-to-face interviews with beef supply chain partners and for the first time cattle producers including feeders, stockers, cow-calf operators, and seed stock producers will be surveyed. Producer input is being sought to strengthen the measurement of quality-based practices implemented on farms and ranches that support consumer confidence in beef products and production systems.

Continued on next page

The Checkoff-funded National Beef Quality Audit (NBQA) has provided important benchmarks for the U.S. beef industry since 1991. According to Tom Field, Executive Director of Producer Education, National Cattlemen's Beef Association, contractor to the Beef Checkoff Program, the audit has been conducted approximately every four years with the historic focus centered on quantifying the performance of beef carcasses for a number of value enhancing characteristics. Field said the previous surveys have assisted in identifying challenges and opportunities for cattle producers.

"We hope to quantify the current adoption level of quality driven management practices by the industry and develop a benchmark against which to measure future

performance. Our goal is to provide a foundation from which to direct future educational initiatives to improve the competitiveness of beef and beef by-products," says Field. "By collecting input from cattle producers, we will help consumers and decision influencers better understand beef production and the commitment of cattlemen to producing safe and wholesome beef products."

Cattlemen can find the survey online at www.cattlesurvey.com beginning on June 2, 2011. The survey will also be available to beef producers at a variety of state, regional and national industry meetings and conventions.

New Animal Disease Traceability Rule Coming June 20, 2011

The United States Department of Agriculture (USDA) will soon publish a new animal disease traceability rule. The rule will require that certain livestock moving interstate be officially identified and accompanied by an Interstate Certificate of Veterinary Inspection (ICVI) or other documentation. The regulations will specify authorized forms of official identification for each species with identification of cattle as the initial target of the program.

The USDA plan focuses on animals moving interstate – the movements with the greatest national impact for spread of diseases. Under the new proposal, the requirement for individual animal identification will include dairy, rodeo and show cattle of all ages and beef cattle 18 months of age and older. There will also be a phase-in of official identification requirements for cattle less than 18 months of age. The rule will provide some exemptions for movement of a commuter herd with a copy of the commuter herd agreement. When agreed upon by animal health officials in two states, movement of cattle under 18 months of age between the two states may occur with documentation other than an ICVI, such as a brand inspection certificate. The following devices will be listed in the proposal as official identification for cattle: Animal Identification Number devices – "840 tags;" National Uniform Eartagging System tags - silver and orange metal tags with the state code; Location-Based Number - an official premises identification number with a unique herd management number.

If agreed upon by animal health officials in the two states where cattle movement is to take place, other forms of animal identification can be used including brands, tattoos and breed registry certificates. States will be responsible for implementing a traceability system that will allow the state to achieve national traceability performance standards. State Animal Health Officials will work closely with local producers to implement a workable system. Each state will be required to develop a three-year roadmap to implement the new regulations.

If you are have interest in participating in the CDFA Animal Disease Traceability Working Group, contact Victor Velez (victor.velez@cdfa.ca.gov)



Epigenetics on the Farm

July 9, 2011

The following article written by Madeline McCurry-Schmidt is from the American Society of Animal Science web page "Taking Stock." It is interesting to note how often sheep are used to study humans. More importantly for livestock producers, it shows how management of the ewe impacts the future offspring.

As health officials debate the causes of the obesity "epidemic," some animal scientists are looking to sheep for answers.

Saturday morning, at the JAM preconference symposium on "Agri-Medical Research: Providing Dual Benefit for Agriculture and Human Health," several scientists discussed the effects of epigenetics on appetite development and weight gain.

Epigenetics is the study of how environmental factors influence genetic expression. Epigenetic changes often occur during pregnancy, when a fetus is exposed to environmental pressures, like nutrition, as it develops.

Dr. Steve Ford, a professor at the University of Wyoming and Director of the Center for the Study of Fetal Programming, studied how pregnant sheep react to changes in nutrition. In his study, he provided a group of pregnant ewes with 150 percent of their required diet to see how fetuses developed as their mothers gained weight. He wanted to see if changes in the womb would affect the next generation.

Indeed, when measuring differences like body length, and appetite, Ford noticed significant difference between the offspring of obese sheep and the offspring of the control group.

"Management can affect the expression of genes," said Ford during his lecture.

The offspring were predisposed to have a shorter length from rump to crown and increased body fat. While they spent the same amount of time feeding as control sheep, the test sheep ate more food, faster. Ford also saw big changes in pancreatic development. The offspring of obese sheep had higher glucose levels but more resistance to insulin.

Oddly, Ford also saw changes when he bred a third generation of sheep. In this trial, Ford took the offspring of the sheep in the first trial and fed them just 100 percent of their required diet, an amount

which did not promote obesity. He then studied the changes in their offspring. Again, the offspring showed differences in body length and body fat.

"It only takes a few generations for those sheep to change phenotypically," Ford said.

He plans to raise this third generation to see if they show any other changes.

Ford's research gives clues to how conditions in the womb

may affect human offspring. For example, both neonatal humans and sheep receive a surge of leptin hormones after birth. Studies have shown that this leptin surge plays a role in establishing appetite behavior throughout life. But in Ford's study, the offspring of the obese sheep were resistant to leptin. As these leptin-resistant sheep grew, they were more likely to gain weight when fed ad-libitum.

Ford's data may help researchers in human health who wonder why obesity tends to run in families.

"Maybe their appetite is being set very early," Ford said.



Benefits of Grazing & Wildfire Risk

August 5, 2011

Historic fire suppression efforts have interrupted the natural fire cycle allowing fuel loads to reach unprecedented levels. Recent catastrophic wildfires, such as those seen in Idaho, Montana, Colorado, and Arizona, have the potential to produce extremely intense and severe burns.

While these fires reduce fuel load, they may also sterilize soils (Wells et al. 1979). These extensive fires may result



in loss of biodiversity and the destruction of critical habitat for native plants and animals, which often leads to invasion by invasive species. Given last year's highly productive grass season, California and the North Coast are at risk for wildfire.

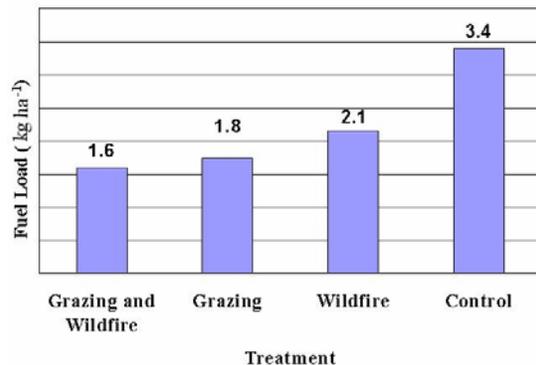
Grazing may reduce fire hazard. Prescribed grazing has the potential to be an ecologically and economically sustainable management tool for

reduction of fuel loads. Existing data indicate there are two ways by which grazing impacts the fuel load: removal of vegetation, and hoof incorporation of fine fuels (Nader, et. al., 2007). Fuel management studies have shown that spread rate and flame length decrease as dry grass fuel loads decrease (Scott and Burgan 2005). Livestock grazing may modify the effects of fire in various ways, often by reducing the fuel load (Collins 1987; Noy-Meir 1995).

Diamond, et.al. (2009) showed that targeted grazing in Idaho reduced Cheatgrass (*Bromus tectorum*) biomass and cover, which resulted in reductions in flame length and rate of spread. When the grazing treatments were repeated on the same plots in May 2006, Cheatgrass biomass and cover were reduced to the point that fires did not carry in the grazed plots in October 2006.

Additional Idaho researchers, Weber, et. al. (2011), showed that livestock grazing was the most effective means to reduce fuel load ($P < 0.0005$) compared to recent wildfire ($P < 0.05$) and livestock grazing with previous wildfire ($P < 0.05$). See the graph at the end of this post. Livestock grazing provides a viable management tool for fuel load reduction prescriptions that avoids the negative effect of extreme fire intensity where fuel load is high.

Additionally, grazing reduces fuel load in a more selective fashion (Archer 1999) avoiding the potential sterilizing effect that an extremely intense fire may have on soil. Studies in other regions have reported results that corroborate well with the Idaho findings. Within montane forests of Zion National Park, Madany and West (1983) considered livestock grazing the primary factor in the reduction of herbaceous cover. Tsiouvaras et al. (1989) reported that grazing by goats effectively reduced 1- and 10-hour fuel load in coastal forest areas of California. Similarly, Blackmore and Vitousek (2000) found grazing in dry forest ecosystems of Hawaii to be an effective means to reduce continuity of fuels, fire intensity, and fire risk.



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USDA Launches Food Hub Website to Get Products to Market

August 8, 2011

The following is a press release from USDA and is another potential marketing tool and resource for small and medium size operations that are looking to market locally within the North Coast.

The U.S. Department of Agriculture's (USDA) Agricultural Marketing Service launched an online resource that makes it easier than ever for small and mid-sized producers to find markets for their products.

With the new food hub web page, producers, buyers and others can now access a central clearinghouse for resources, news and information related to food hubs and similar enterprises that provide infrastructure support for small and mid-size producers. Contents of the web page will continue to evolve as USDA expands its understanding of the unique food hub business model, which pairs producers with buyers to serve local and

regional food systems. Ultimately such enterprises support local economies and create jobs by offering services that enable farmers to break into new, higher-volume markets and preserving product identity.

The web page features information from numerous USDA agencies and other leading research and practitioner organizations in the public, non-profit and private sectors. A comprehensive, evolving directory of identified food hubs and financial resources will allow users to find desired markets quickly, without spending hours collecting information from various locales.

The information is available at www.ams.usda.gov/foodhubs.



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