Social concerns drive dairy cattle welfare

By CHRISTOPHER WOLF and GLYNN TONSOR*

THE U.S. dairy industry is facing pressure to assure and verify dairy cattle welfare-related practices in response to societal concerns.

Residents in multiple states have determined, through ballot initiatives or legislation, that particular livestock agriculture production practices will be phased out or banned due to associated undesirable animal welfare impacts.

However, it does not take formal policies to change agricultural production practices. Many foodservice establishments — from grocers to restaurants — are also increasingly purchasing their food from "humanely raised" sources.

While most of the attention and legal changes to date have focused on other livestock sectors, the dairy industry is affected by these pressures as well.

Recognizing the broader discussions and interest in animal welfare, this research aims to determine U.S. public's attitudes and perceptions about dairy cattle welfare.

A national online survey was administered to collect information about U.S. consumer milk purchasing habits, perceptions of dairy cow welfare and demographic characteristics.

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Dairy HACCP program for residues launched

By TIM LUNDEEN

In 2009, Wisconsin led the nation in the number of dairy beef drug residue violations as well as the number of repeat violators. Dairy producers and veterinarians were targeted as the primary source of the problem, and there was a call for increased regulation to deal with this issue.

However, the Wisconsin Veterinary Medical Assn. (WVMA) chose to approach the issue differently and created the WVMA Residue Task Force — a group of veterinarians focused on developing a non-regulatory solution to the dairy beef residues, committee chair Jon Garber explained during the Zoetics technical breakfast at the recent American Association of Bovine Practitioners annual conference in New Orleans, La.

In 2012, WVMA, in partnership with the Professional Dairy Producers of Wisconsin, developed the What Matters initiative — a comprehensive, non-regulatory, educational outreach program. Garber said, noting that the WVMA Food Armor HACCP for Proper Drug Use Program is the "how" step of the What Matters initiative.

In the years since, WVMA has trained veterinarians and producers on how to implement hazard analysis and critical control point (HACCP) plans for proper drug use on dairy farms. While originally geared toward dairy operations in Wisconsin, the program is now being rolled out nationwide, Dr. Katie Murdlt, Food Armor outreach specialist for WVMA, said.

Farms can now become food safety certified through Food Armor. Food Armor is an on-farm program that delivers a verifiable drug use quality assurance program by defining the roles and responsibilities of those using it, she said.

The first-of-its-kind, comprehensive program helps veterinarians and producers manage food safety while ensuring proper drug use.

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USDA issues avian flu response plan

By JACQUI FATKA

EARLIER this year, highly pathogenic avian influenza (HPAI) resulted in the depopulation of 7.5 million turkeys and 42.1 million egg-laying hens and pullet chickens and cost taxpayers $550 million.

The U.S. Department of Agriculture and industry groups have compiled a comprehensive response manual to help in the event of future HPAI infections.

USDA's Animal & Plant Health Inspection Service (APHIS) said it is "keenly aware of the significant impact the spring outbreak has had on all parties: poultry producers, allied industries, federal and state governments and the American consumer. ... APHIS is confident that its surveillance programs in commercial and wild birds, which are the strongest in the world, will enable us to detect the disease early. If HPAI should reappear in the coming months, APHIS is ready to respond and committed to helping those affected by the disease."

The decline in HPAI detections provided an opportunity to enhance prevention efforts and prepare for additional cases in backyard and commercial poultry that may occur in the fall, when birds migrate south from their northern breeding grounds, USDA said in its "Fall 2015 HPAI Preparedness & Response Plan."
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Senate passes ag reauthorization bill

On Sept. 21, the full Senate passed H.R. 2051, the Agriculture Reauthorization Act of 2015, which reauthorizes mandatory price reporting, the National Forest Foundation Act and the U.S. Grain Standards Act. Unlike the House’s version, the bill does not make the mandatory livestock price reporting program an “essential” service to protect it during a government shutdown, which livestock groups have lobbied for. Language included in the grain standards reauthorization would improve predictability and transparency for U.S. commodity producers, exporters and trading partners through increased reporting and certification requirements. H.R. 2051 now heads back to the House and is expected to pass before these laws expire on Sept. 30.

New Cuba trade rules announced

The Obama Administration announced new rules Sept. 18 that will further normalize relations between the U.S. and Cuba. The regulatory changes include easing restrictions on authorized travel and allowing U.S. companies to establish offices in Cuba. The announcement builds on moves the departments of treasury and commerce made earlier this year to loosen U.S. restrictions on trade and travel with Cuba. The embargo remains in effect, however, and agricultural groups continue to ask Congress to lift the embargo on sugar and tobacco. These recent developments do not appear to directly affect U.S. agricultural trade with Cuba.

Legumex pursuing two sales

Legumex Walker Inc. announced that it has entered into a definitive agreement to sell all of the assets of its Special Crops Division to The Scoolar Co. for $94 million (Canadian) in cash plus the amount of net working capital at closing, bringing the total transaction value to $174.6 million. “This is a highly strategic addition to our existing global feed and food ingredient merchandising business and the U.S.-based grain handling network,” Scoolar chief operating officer Bob Ludington said. “The transaction will significantly increase our product and geographic footprint, which, in turn, will increase our ability to serve new and existing customers worldwide.” Legumex also said it is negotiating the sale of its 84% stake in Pacific Coast Canola LLC, a crushing plant in Washington, which defaulted on its $54.6 million loan in July. Legumex said these two transactions will allow it to wind up its operations and return $2.50-2.75 per share to shareholders after repaying banking debt and other obligations.

IDFA helps create ProFood Tech event

The International Dairy Foods Assn. (IDFA) has joined forces with two other trade show leaders to announce the launch of ProFood Tech, a new event that will focus on processing technologies for the food and beverage industry. ProFood Tech will debut April 4-6, 2017, at McCormick Place in Chicago, Ill. The event is powered by IDFA, PMMI and The Association for Packaging & Processing Technologies, Keene, N.H.

Antimicrobial use

The Food & Drug Administration, the U.S. Department of Agriculture and the Centers for Disease Control & Prevention will hold a joint public meeting Sept. 30 in Washington, D.C. The meeting plans to collect data on antibiotic use in food-producing animals. Gathering information on how and why medically important antibiotics are used is essential to measuring the impact of FDA’s judicial use strategy outlined in “Guidance for Industry #213.” Collection of on-farm usage data is consistent with national objectives to enhance monitoring of antimicrobial resistance patterns as well as antimicrobial sales, usage, and management practices at multiple points in the production chain for food animals and retail meat. This data collection plan is intended to inform efforts to assess the rate of adoption of changes outlined in Guidance #213, to help gauge the success of antibiotic stewardship efforts and guide their continued evolution and optimization.” (3) assess associations between antimicrobial use practices and resistance trends over time. Further meeting details are at www.fda.gov/AnimalVeterinary/NewsEvents/WorkshopsConferences/ucm456380.htm.

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Dairy producers who were enrolled in 2015 need to make a coverage election for 2016 and pay the $810 administration fee, USDA noted. Although any unpaid premium balances for 2015 must be paid in full by the enrollment deadline to remain eligible for higher coverage levels in 2016, premiums for 2016 are not due until Sept. 1, 2016. USDA said it will allow farmers to pay their premiums to county FSA offices through milk check deductions or personal checks that have been worked out with the farmer’s milk handler.

New England lawmakers drafted a letter asking USDA to re-examine feed price calculations and conduct an audit of the insurance program for small farm operators.

PMFP president and chief executive officer Jim Mulhern said NMPF continues to call on USDA to resolve certain elements of the program, including enabling dairy farmers to purchase supplemental coverage without having to base their catastrophic coverage reduced below 90% and protecting the next generation of farm families by accommodating intergenerational transfers of farm ownership.

For further program information, visit www.FSA.usda.gov/aprc and www.FSA.usda.gov/dairy.

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POSTMASTER: Please send address corrections to Feedstuffs, 255 38th Ave., Suite P, St. Charles, Ill. 60174. Periodicals postage paid at St. Charles, Ill., and additional entry offices.

Inside Washington

with JACQUI FATKA

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For further program information, visit www.FSA.usda.gov/aprc and www.FSA.usda.gov/dairy.

NOTE farm bill deadlines

Farmers and ranchers have until Sept. 21 to enroll in some key farm bill safety net programs: Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC).

Last week, the U.S. Department of Agriculture did extend the Sept. 20 enrollment deadline for dairy Margin Protection Program (MPP) for coverage in 2016.

‘Producers already have elected ARC or PLC, so now it is the time to sign the contract and enroll for the 2014 and 2015 crop years,’ Farm Service Agency (FSA) administrator Val Dolcini said.

MPP provides financial assistance to participating dairy farmers when the market — the difference between the price of milk and feed costs — falls below the coverage level selected.

The National Milk Producers Federation (NMPF) had asked USDA for the MPP extension, saying producers needed extra time to weigh their options for utilizing both crop insurance and dairy margin insurance.

NMPF also welcomed the news that USDA will now give farmers until Sept. 1, 2016, to pay 100% of their premium (that deadline previously was June 1). The new date allows producers to pay their premium in whole or in part any time prior to Sept. 1 of the coverage year.

That change ‘could have a positive impact on farmers’ decisions regarding next year’s enrollment, but only if they have sufficient time to make an informed decision,’ NMPF wrote in a letter to USDA.
Sage grouse not listed as endangered

By JACQUI FATKA

T

HE U.S. Department of the Interior has decided not to list the sage grouse as an endangered species — a huge win for local landowners and ranchers — but the agency still will move forward with land use plans in 10 western states.

The decision came just days before the Sept. 30 deadline set forth by a 2011 settlement between DOI and wildlife interest groups calling for the U.S. Fish & Wildlife Service (FWS) to make an Endangered Species Act (ESA) determination on the sage grouse.

FWS reached this determination after evaluating the bird’s population status, along with the collective efforts by the Bureau of Land Management (BLM), U.S. Forest Service, state agencies, private landowners and other partners to conserve its habitat.

Despite long-term population declines, sage grouse remain relatively abundant and well distributed across their 173 million-acre range.

After a thorough analysis of the best available scientific information and taking into account ongoing key conservation efforts and their projected benefits, FWS determined that “the bird does not face the risk of extinction now or in the foreseeable future and, therefore, does not need protection under the ESA.”

Many consider the decision to be a result of joint efforts between ranchers and partners to conserve wildlife. Public and private partners engaged in the U.S. Department of Agriculture’s Sage Grouse Initiative (SGI) have conserved 4.4 million acres since SGI launched in 2010 using voluntary and incentive-based approaches to conservation.

From 2010 to 2014, USDA’s Natural Resources Conservation Service invested $296.5 million in SGI, and partners contributed an additional $198 million. With implementation of the SGI 2.0 strategy announced in September, the agency and its partners will invest roughly $760 million and will conserve 8 million acres by the end of 2018.

Land use plans

BLM and the Forest Service also announced that they have issued records of decisions finalizing 88 land use plans to help conserve greater sage grouse habitat and support sustainable economic development on portions of public lands in 10 states across the West.

The land use plans, developed during a multiyear process with the states and local partners, are guided by the best available scientific and technical advice from FWS.

The Public Lands Council (PLC) and the National Cattlemen’s Beef Assn. (NCBA) have adamantly opposed these plans, which they say impede the conservation efforts and range management practices already in place.

“The Administration came to the logical decision not to list the sage grouse but went ahead and forced through their land use plans, which are just as concerning as a listing,” PLC President Brenda Richards said. “Instead of recognizing the stewardship that land users have voluntarily put in place, they are pushing forward their agenda, which ignores multiple uses on our lands.”

Since proper grazing is beneficial to wildlife habitat, Richards believes it makes the most sense for the government and ranchers to work in partnership and said that how land management and conservation efforts should be made.

The final land use plans still are contentious and are expected to prompt legal actions by environmental groups as well as several of the affected states.

In early 2015, PLC and NCBA filed detailed comments addressing concerns with the draft environmental impact statements. With little to no change in the final documents, the livestock industry in nine western states filed protests and is pursuing a legal challenge against the government for relying on flawed science.

House Natural Resources Committee Chairman Rob Bishop (R., Utah) called the sage grouse decision a cynical ploy and said the Administration’s oppressive land management plan is the same as an ESA listing.

“The new command-and-control federal plan will not help the bird,” Bishop said. “It would control the West, which is the real goal of the Obama Administration.”

Bishop said, “Some western governors see this for what it is, and I will work with them to ensure the rational plans created at the grassroots level that solve the problem will be the way forward to protect this bird.”

New Kentucky dairy research farm will focus on cow comfort

Dairy cows at the University of Kentucky will soon be enjoying improved accommodations as university officials recently broke ground on the Coldstream Dairy Research Farm.

The name for the new barn will be the Dairy Housing, Teaching & Research Facility, and it will be the only facility of its kind at a research institution in the U.S., the announcement said.

The herd is currently housed in a freestall barn built in the 1960s. Although that type of facility is still the predominant housing system for dairy cows, University of Kentucky College of Agriculture officials wanted to try something new.

“This type of facility does not have any stalls,” University of Kentucky dairy specialist Jeffrey Bewley said. “Instead, cows will be able to lie down in any position they want to within the barn. This has great potential to improve feet and leg health.”

The barn will have a concrete center lane to provide access for a tractor and mixer wagon to come through and deliver feed. The cows will also be able to walk down an adjacent alley to access food and water. They will rest in the open bedding areas between feedings and milking.

“It will be a tall, open barn designed to maximize natural ventilation, and it will be supplemented with fans and sprinklers for cooling,” Bewley said. “It’s designed to maximize cow comfort. The open bedding area provides a comfortable place for cows to lie down, and the cooling features will help our animals deal with hot and humid weather.”

Beeching is the main reason for cows’ improved health and overall comfort, Bewley said it starts with about 12 in. of sawdust. Cows naturally add to the sawdust with manure and urine. Twice a day, while the cows are out milking, the bedding gets mechanically stirred and mixed to form a dry material with minimal odor where cows can rest. Employees periodically will add fresh bedding to the mix.

Cows will have access to a grooming brush at all times. The barn will have curtains to protect cows from rain and colder temperatures. The curtains are automated, with a controller raising them up and down based on ambient conditions.

The facility will also incorporate multiple precision dairy technologies to allow researchers to understand the cow’s behavioral and physiological response to her physical environment in ways that were not possible a few years ago.

The University of Kentucky dairy has a milking herd of around 100 Holstein cows that each average nearly 24,000 lb. of milk per year. The dairy farm facilities give undergraduate students a chance to observe a functional dairy operation as part of their courses.

HABITAT CONSERVATION: The U.S. Department of Agriculture unveiled the Sage Grouse Initiative 2.0 as a roadmap to guide voluntary conservation efforts on private grazing lands in the West.
Harvest transportation, weather look favorable

By KRISBA WELSHANS

W EATHER and transportation have created fall harvest challenges in recent years, but new reports suggest that this year will be an overall smooth harvest season.

"From having my ear to the ground and visiting with various grain handlers, I am pretty confident our nation’s railroads will be able to accommodate the upcoming harvest," Soy Transportation Coalition executive director Mike Steenhoek recently said. "Over the past couple years, railroads have devoted significant resources to improving the condition of their networks."

Steenhoek noted that there currently are additional locomotives, track and personnel available to meet the needs of rail customers compared to previous years. In fact, he said railroads should be commended for their improvements.

While railroads have invested more in their networks, it is also anticipated that the grain volumes transported will be restrained due to farmers electing to store their corn and soybeans, Steenhoek said. "We witnessed this last year, particularly with corn. The further retreat in prices will result in a growing number of farmers deciding to hold onto their harvest, hoping for a more opportune time to sell. Of course, there is a limit to how long a farmer can store his or her grain and soybeans, but on-farm storage will be increasingly utilized this year," he said.

Compared to previous years, Steenhoek said a projected amicable export program will further contribute to on-farm storage and result in railroads absorbing less volume.

"As I like to say, the strengthening of the dollar, the future depreciation of the Chinese yuan, the weakening of the Brazilian real compared to the dollar (29% so far this year) and the overall concerns with the Chinese economy are producing significant headwinds for U.S. agricultural exports, especially soybeans," Steenhoek noted. "The good news is that there will likely be sufficient transportation supply to accommodate demand. The bad news is that the increasing unfavorable economics facing the industry are a key contributing factor."

Of course, the main wild card regarding rail service is weather, he said.

Both volume of snow and severity of temperatures can significantly curtail railroad network performance. It was vividly on display in early 2014, when railways struggled to absorb the 2013 harvest in part due to a historic winter in many areas of the country." Steenhoek said.

Given the challenges and concerns confronting the industry, he said there should be an increased focus on opportunities to reduce the costs associated with the U.S. transportation system.

"As I like to suggest, the profitability of the American farmer is not just a function of increased supply and increased demand. It is also a function of increased connectivity between supply and demand. Transportation is that connectivity," Steenhoek said.

Weather outlook

Regarding the weather, Iowa State University agronomist Elwynn Taylor said current forecasts look favorable for harvest over the next few weeks.

"An El Nino — or a band of warm ocean water that develops in the east-central Pacific — should hold in check hurricane remnants or other huge rainstorms. That’s good news for farmers who depend on dry conditions to get combines into the fields," Taylor said.

"At the same time, El Nino also increases the risk of near-normal temperatures in September, October and November in Iowa. As a result, August was a very dry month in most of the Corn Belt region, as well as in western Nebraska and Kansas, but the magnitude of the problem won’t be known until more harvest reports come in," Lafferty said. "Regardless, the season is late enough that widespread disaster-level losses can pretty much be ruled out of the picture. In general, again, freeze risk appears to be a non-issue at this point."

For the eastern Corn Belt, he said a wet start has been offset by excellent overall growing conditions, which has brought the crop back to a near-trend finish.

"There has been some late-season loss of potential due to lack of recent rainfall and around the eastern Corn Belt region, as well as in western Nebraska and Kansas, but the magnitude of the problem won’t be known until more harvest reports come in," Lafferty said. "Regardless, the season is late enough that widespread disaster-level losses can pretty much be ruled out of the picture. In general, again, freeze risk appears to be a non-issue at this point."

USDA issues avian flu response plan for fall

From page 1

WHILE HPAI infections since December 2014 have been identified in three of the four U.S. flyways, USDA said it expects that HPAI viruses will be brought to the Atlantic flyway by migrating ducks, if not already present but undetected in the resident wild duck population.

USDA said it learned many things from the spring HPAI outbreak and is assuming a worst-case scenario beginning in mid-September 2015, with HPAI occurring simultaneously in multiple sectors of the poultry industry throughout the nation. Under this scenario, 500 or more commercial establishments of various sizes could be affected.

The USDA fall preparedness and response plan organizes information on preparatory activities, policy decisions and updated strategy documents into four key areas: (1) preventing or reducing future HPAI outbreaks, (2) enhancing preparedness, (3) improving and streamlining response capabilities and (4) preparing for the potential use of avian influenza vaccines.

The report also includes an updated biosecurity self-assessment for the poultry industry and guidance on the use of appropriate procedures for providing in deminm and other payments, a draft vaccine use strategy and guidance on the decision-making process for agency stakeholders.

APHS said it is publishing an interim rule on HPAI indemnity programs that were designed to provide all future HPAI-affected commercial poultry producers to self-certify that biosecurity procedures were in place at the time HPAI was detected.

USDA also sent out a survey to all 50 states and five U.S. territories and territories asking the plans that are in place to deal with HPAI. USDA confirmed from this analysis that 20 states in the critical worst-case scenario category have all made significant efforts in implementing detection, preparedness and response capabilities for future HPAI cases.

However, although all have implemented one or more practices to increase biosecurity and address gaps, USDA noted that "there are areas where improvements are needed."

USDA said it focused considerable effort in the area of depopulation and disposal during its fall planning activities. APHS developed a comprehensive decision-making tool to assist responders with selecting the best option; these tools include decision guides, checklists and online training modules.

APHS has initiated contract actions to solicit vendors that can provide high-capacity mobile disposal/treatment technologies. In addition, APHS has studied the demographics of poultry populations, developed mapping coordinates for rendering, landfill and incineration facilities in the U.S. and linked these coordinates with an automated selection tool.

APHS said its goal is to de-populate all affected flocks within 24 hours of preliminary diagnosis, and if that cannot be achieved by standard methods, the APHS National Incident Commander will approve the use of ventilation shutdown for depopulation on a case-by-case basis.

The process for calculating reimbursement and disinfecting costs has been especially difficult for the 2015 HPAI outbreak, APHS said. For all future cases, APHS will pay a standard per-bird rate (separate rates for cage versus floor-reared operations) for virus elimination activities, based on the cost of the preferred method of dry cleaning and heating.

This flat rate can be adjusted based on the time of year to account for any increase or decrease in costs of heating a facility to the appropriate temperature specifications for the necessary length of time during colder weather.

On Aug. 28, the National Chicken Council released its top biosecurity principles for breeder and breeder-producers to help them prepare for the potential re-emergence of HPAI in the fall.

The National Turkey Federation (NTF) also released an updated manual, spotlighting specific biosecurity practices recommended by its Turkey Health & Welfare Committee based on lessons learned from the spring HPAI outbreak and providing direct links to newly available USDA checklists and procedures.

NTF said it supports USDA’s approved emergency methods as well as clarity regarding how farmers can seek indemnity payments and remain transporting turkeys.

The USDA plan is available at www.aphis.usda.gov/animalhealth/ai/updates. 
Crop species diversity dwindling

U.S. farmers are growing fewer types of crops than they were 34 years ago, which could have implications for how farms fare under a changing climate, according to a large-scale study by Kansas State University, North Dakota State University and the U.S. Department of Agriculture. Less crop diversity may also be affecting the general ecosystem.

“At the national level, crop diversity declined over the period we analyzed,” said Jonathan Aguilar, Kansas State water resources engineer and lead researcher on the study.

Cropland comprises about 408 million acres, or 22% of the total land base in the lower 48 states, so changes in crop species diversity could have a substantial impact on not only agro-ecosystem function but also the function of surrounding natural and urban areas.

Because croplands are typically replanted annually, crop species diversity can theoretically change fairly rapidly, so there is potential for swift positive change, unlike in natural ecosystems.

“At the very simplistic level, crop diversity is a measure of how many crops in an area could possibly work together to resist, address and adjust to potential widespread crop failures, including natural problems such as pests and diseases, weed pressures, droughts and flood events,” Aguilar said. “This could also be viewed as a way to spread potential risks to a producer. Just like in the natural landscape, areas with high diversity tend to be more resilient to external pressures as they are areas with low diversity. In other words, diversity provides stability in an area to assure food sustainability.”

In addition to the national trend, the researchers studied regional trends by examining county-level data from areas called “farm resource regions” developed by USDA’s Economic Research Service (Map). Although the study found that crop diversity declined nationally, it wasn’t uniform in all regions or in all states.

“There seem to be more dynamics going on in some regions or states,” Aguilar said, noting that not all of the factors affecting those regional trends are clear.

For instance, the Heartland resource region, which is home to 22% of U.S. farms and represents the highest value (22%) of U.S. production, had the lowest crop diversity. This region comprises Illinois, Iowa, Indiana and parts of Ohio, Missouri, Minnesota, South Dakota, Nebraska and Kentucky.

In contrast to all of the other regions, the Mississippi Portal Region, which includes parts of Louisiana, Mississippi, Kentucky and Arkansas, had significantly higher crop diversity in 2012 than in 1978.

While the overall national trend was toward less crop diversity, the regions with the most crop diversity were the Great Plains (comprising parts of Washington, Oregon, Idaho, California, Arizona, Texas, Florida, Georgia and South Carolina) and the Northern Crescent (states along the northeastern border from Minnesota east through Wisconsin, Michigan, Ohio, Pennsylvania, New York, New Jersey, Delaware, West Virginia, Maryland, Delaware, Pennsylvania, Ohio, New Jersey, Illinois, Indiana, Missouri, Arkansas, Tennessee, Kentucky, West Virginia and Maryland).

A significant trend of more counties shifting to lower rather than higher crop diversity was detected, the team wrote in the study results. “The clustering and shifting demonstrates a trend toward crop diversity loss and attendant homogenization of agricultural production systems which could have far-reaching consequences for provision of ecosystem services associated with agricultural systems as well as food system sustainability.”

Implications

“Biodiversity is important to the ecosystem function,” the researchers wrote. “Biodiversity in agricultural systems is linked to critical ecological processes such as nutrient and water cycling, pest and disease regulation and degradation of toxic compounds such as pesticides. Diverse agro-ecosystems are more resilient to variable weather resulting from climate change and often hold the greatest potential for such benefits as natural pest control.”

A classic example where high crop diversity could have been crucial was during the corn leaf blight epidemic in the 1970s, Aguilar said.

During the 20th century, increases in the value of human labor, changes in agricultural policies and the development of new agricultural technologies led to increased specialization and scale of production. Economic and social factors helped drive the adoption of less diverse cropping systems.

“An important consequence of increased crop homogeneity is the potential for yield instability with anticipated increased unpredictability in weather patterns linked to climate change. Diverse cropping systems tend to increase farmers’ chances of encountering favorable conditions while decreasing the probability of widespread crop failures,” the team wrote, citing a long-term study based on data collected in Ontario.

Chesapeake Bay rulings to be challenged

By JACQUI FATKA

THE American Farm Bureau Federation (AFBF) and its allies were granted an extension to file a petition by Nov. 6 to the U.S. Supreme Court to overturn two lower court decisions upholding the Chesapeake Bay Clean Water Blueprint.

Ellen Steen, AFBF general counsel, said she expects the Supreme Court to make a decision on whether it will hear the case in late winter of 2016.

The case began in 2010, after the Environmental Protection Agency released the bay’s “pollution diet,” or total maximum daily load (TMDL), with targets for reducing nutrient and sediment runoff from six states and Washington, D.C. Each state was told to develop its own plan to meet the goals, but EPA also stepped in and made specific requirements within the plan.

According to AFBF, EPA believed its authority allowed it to “assign nitrogen, phosphorus and sediment limits for each farm, home site or even each acre of undeveloped land across the countryside.”

Steen noted that the groups are not trying to invalidate the entire cleanup plan — just how EPA has carved up the allowable solutions among different activities and sources.

Steen said as new information and technology become available over time, states won’t have the discretion to change what they can use to meet pollution reduction goals without EPA approving those changes.

“In the end, this creates a bureaucratic process that is not flexible or adaptable and doesn’t allow states to meet most effectively and efficiently achieve the goals in the long run,” she said.

In arguing for states’ rights in previous appeals, AFBF explained a ruling removing the challenged EPA source limits, or “allocations,” from the TMDL “would in no way impair the ability of any state to achieve those objectives. It would only allow them the freedom — as Congress intended — to set different allocations and deadlines, if they so choose.”

Twenty-one states filed support in the last appeal brought by AFBF, the Pennsylvania Farm Bureau, The Fertilizer Institute, National Chicken Council, U.S. Poultry & Egg Assn., National Pork Producers Council, National Corn Growers Assn., National Turkey Federation and National Association of Home Builders.
Purdue food safety tech ready for scale-up

QUALITY control facilities in the food industry and the federal government can use new technology developed by a team of Purdue University researchers to speed up the process of detecting pathogens like salmonella in fruits, vegetables, meat and other food.

According to the Centers for Disease Control & Prevention, an estimated one in six Americans is sickened by foodborne illnesses annually, resulting in about 3,000 deaths. Salmonella is the leading cause of deaths and hospitalizations related to foodborne illness, causing an estimated 380 deaths and 19,000 hospitalizations in the U.S. each year.

Michael Ladisch, distinguished professor in the Purdue department of agricultural and biological engineering and Weldon School of Biomedical Engineering and director of the Laboratory of Renewable Resources Engineering, led a team that created a method to process food samples much faster than traditional methods.

In July, the technology won the grand prize in the Food & Drug Administration’s 2014 Food Safety Challenge. The team received $300,00 in prize money to further develop the technology.

“Microfiltration has been around more than 30 years — first used for filtering water and developed over the years for food materials — but the membrane fouls very quickly, which has been an impediment to use,” Ladisch said. “We’ve improved the use and enabled rapid filtration with actual food extracts rather than needing microorganisms to buffer.”

Ladisch said the detection of food pathogens, or microorganisms that cause foodborne illness, in the U.S. is excellent. He noted that FDA, the U.S. Department of Agriculture and the food industry are able to detect and identify pathogens and their sources.

“The challenge they now face is being able to test more samples more quickly — that the time between when a food pathogen might be present and when it is detected would be shortened,” he said. “Our technology makes it possible to process the samples more quickly — in hours instead of days.”

The technology was developed through a grant from USDA’s Office of Scientific Quality Review, USDA Hatch funds and industrial funding.

The Purdue Research Foundation Office of Technology Commercialization has filed for U.S. and international patent protection for the innovation.

SAFE FOOD: Michael Ladisch and Tommy Kreke with Purdue University examined fresh spinach and liquid samples for pathogens using a method created by Purdue. The technology to process the samples is faster than traditional methods and is being developed to meet industry standards.

Names in the News

ALFAGREEN SUPREME, Toledo, Ohio — Devin Conklin has joined the company as controller. Conklin has financial oversight of the company and will coordinate the administration of human resources with management and third-party resources.

ANIMART LLC, Beaver Dam, Wis. — Lance Paulson has joined the company as professional services manager. Paulson will guide company veterinarians and regulatory staff on providing comprehensive animal health solutions to dairy producers. He will also oversee the company’s pharmacy.

CANADIAN BIO-SYSTEMS INC., Calgary, Alberta — Dr. Angelina Archile has joined the feed technology science team as technical services manager. Archile will help lead the engineering and protocols of the complete product portfolio to customers.

CANTRELL, Gainesville, Ga. — Travis Newberry has been promoted to manager/engineering. Newberry will lead the engineering department, with responsibility for developing technical specifications for equipment and parts as well as mechanical drawings and project layouts for production and installation of equipment. He was most recently project manager.

CHS INC., St. Paul, Minn. — John “Jack” Lenzi has joined the company as vice president, corporate compliance. Lenzi will be responsible for leading the compliance department. He was previously with KPMG.

INFORMA ECONOMICS, Memphis, Tenn. — Grady Ferguson has joined the company as commodity market analyst in the Livestock, Meat, Poultry & Dairy Group.

Richard Morrison has joined the company as a writer/editor for the Informa Economics issue Monitor and other client publications. Morrison was previously with Envision.

Steven Ventura has joined the company as research analyst in the Project Consulting Group. Ventura will cover agricultural policy and trade analysis, economic modeling, feasibility studies, database management and general market research on commodities and their supply chains. He was previously with SouthCap Brokerage Group.

NATIONAL GRAIN & FEED ASSN., Washington, D.C. — Bob Boge has been selected as director of legislative affairs and public policy. Frederick will serve as the principal policy advocate on Capitol Hill and will be involved in developing and executing the association’s overall legislative strategy. He will serve as principal staff liaison to the biotechnology committee and the Waterborne Commerce Committee. He was previously with the staff of Rep. Rodney Davis (R., Ill.).

NUTRIAD INTERNATIONAL NV, Dendermonde, Belgium — Dr. Adrian Krzywawska has been appointed country manager Poland. Krzywawska will work to expand market share in the Polish market.

VETS PLUS INC. Mencion, Wis. — David Nelson has been appointed president. Nelson will be responsible for ensuring production execution. He was previously with Great Lakes Calcium Corp.

ZINPRO CORP., Eden Prairie, Minn. — Amy Su has joined the company as marketing coordinator-China. Su will coordinate marketing and public relations activities, including communications with media and preparations for company seminars and trade show events.

Bakalar acquires Schweigert brand

BAKALAR Sausage Co. has entered into an agreement to acquire the Schweigert brand of hot dogs, natural casing hot dogs, braunschweiger, summer sausage and breaded chicken products from Wichita, Kan.-based Cargill Turkey & Cooked Meats.

The transaction will be completed in October, and terms were not disclosed.

Schweigert will expand Bakalar’s portfolio of regional meat offerings.

“This is a wonderful addition to our portfolio of specialty meat items and provides our business with another strong regional brand that complements our existing product line while strengthening and expanding our business,” president Mike Bakalar said. “We are excited about Schweigert’s growth potential and the fact that, like our business, it was founded in the 1930s and includes an established consumer brand.”

Production will shift from Cargill’s Albert Lea, Minn., meat processing facility to the Bakalar plant in La Crescent, Wis., enabling Cargill to expand its remaining operations at Albert Lea.

Cargill acquired the Schweigert brand in 2008 when it purchased Willow Brook Foods.

"We are delighted Bakalar will continue the tradition of producing the quality Schweigert products so many consumers have come to love," said John Niemann, president of Cargill Turkey & Cooked Meats. "Schweigert is a good fit for Bakalar and will provide their firm with incremental growth while concurrently allowing us to expand other types of processing at Albert Lea to meet customer needs."

Established in 1935, Bakalar is a regional wholesale meat company that distributes its research to retail and food service outlets throughout the Midwest.
Grain markets starting transition

By RICHARD A. BROCK

For the majority of people who read this, I bet on a daily basis you deal with either customers or employees or, in most cases, both.

As a result, it is sometimes difficult to see the forest for the trees and to be able to sort out all of the market “noise.”

As the grain markets start to transition, in my opinion, from a long-term bear market into possibly a base-building market, a couple of old rules of thumb are worth remembering:

1. It is not the “facts” that are important in a market. What is important is what people “think” the facts are.

2. Grain markets, for the majority of the time, make sharp V tops and long, flat bottoms.

On the second point, bottoms in a grain market normally last much longer than most people consider possible.

The psychological shift of going from what we’ve been experiencing since the fall of 2012 to where we think the market is headed now is not the easiest transition to make, at times.

In my July article (Feedstuffs, July 27), I made the point that both corn and soybean meal prices were close to shifting into a base-building market, and even if that prediction was premature, the market was much closer to a bottom than the top.

It’s always easier to say whether a market is trading in the top third or bottom third of the expected annual price range, rather than trying to determine the absolute bottom or top.

A lot has changed in this past two-month period. While harvest certainly is not finished, the final crop size in corn and soybeans is becoming clearer every day.

Based on early reports in the South and the southern Corn Belt, both corn and soybeans are coming in, for the most part, at average or below-average yields. The odds of a national corn yield exceeding 172 bu. per acre and soybeans exceeding 49 bu. per acre are very remote. At the same time, unless a frost occurs within the next two weeks in the Dakotas and Minnesota, the odds of yields under 166 bu. in corn and 46 bu. in soybeans are also slim.

That means the odds that the expected carryover in corn will be around 1.6 billion bu. versus this past crop year’s 1.7 billion bu. and soybeans will be about 256 million bu. versus this past year’s 210 million bu.

Translated into prices, that would result in an expected average price in the high $3.00/bu. range for corn in Central Illinois (Figure 1) and in the high to mid-$8.00/bu. range for soybeans. Ironically, that’s about where both markets were trading as I wrote this column.

Making the adjustment

Many people in this industry who are under age 45 and have not lived through these transitions before may be anticipating a sharp move to the upside — or at least hoping for one.

That’s not likely to happen.

The cure for low prices is low prices. Demand is not built overnight, but it can be severely damaged overnight by too high of prices. So, now we need to prepare ourselves mentally for the long period of flat prices, which can be very boring.

It changes the approach everyone in the feed industry will take to managing profit margins. Holding inventories unpriced has been costly in the last three years but will be less costly in the months ahead. Some will have to relearn playing carrying charge spreads.

The next couple of years will create many good profit opportunities in the feed industry — just different types of opportunities than extreme price volatility offers. Margins in most products will tighten, but the opportunities will be there, as they almost always have been.

Grain producers will go through the biggest adjustments as input prices drop much more slowly than the price of corn and soybeans.

Good producers are going to continue making very strong profits in both corn and soybean production, but the marginal guys that have locked in high rents and have a small base to work with will be facing some very challenging times.

For those who sell inputs to producers, the importance is to identify which one of these two categories your client fits into.

The bottom line

From 2009 to the fall of 2012, soybean meal, for example, was in a long-term bull market. From 2012 until now, the trend has been — obviously — down. A three-year bull market followed by a three-year bear market is not at all uncommon.

Can we now expect a two- to three-year base-building market where ripples need to be sold, dips need to be bought and breakouts to the upside or downside are not to be trusted? That is where I think we are headed.

Bayer to focus on life science

FOLLOWING the economic and legal separation of Covestro, Bayer announced Sept. 18 that it is charting the course for its successful development as a life science company.

The supervisory board has approved a reorganization program for the board of management. Starting Jan. 1, 2016, the company’s business will be managed by three divisions: Pharmaceuticals, Consumer Health and Crop Science.

The present structure of a strategic management holding company and operational subgroups will be replaced by an integrated organization under the umbrella of the Bayer brand, the announcement said.

“The aim of the new organization is to provide the best possible support to Bayer’s strategy as a leading life science company and to put ourselves in an even stronger position vis-à-vis our competitors. We can achieve this by further improving our innovation strength, sharpening our customer focus and strengthening business process excellence,” Dr. Martin Decker, chairman of the Bayer AG board of management, said.

In the new organization, the Bayer AG board of management will also hold overall responsibility for business operations. For this reason, the supervisory board resolved to appoint the heads of the divisions — Dieter Weinand of Pharmaceuticals, Erica Mann of Consumer Health and Lian Condon of Crop Science — to the board of management, effective Jan. 1, 2016.

“in recent years, Bayer has continued developing its portfolio with a significant focus on the life sciences. The company’s very strong position at this time enables it to concentrate exclusively on these businesses. The logical conclusion of this is greater integration of the organization,” Werner Wenning, chairman of the supervisory board, said.

As part of the reorganization, the Bayer HealthCare subgroup will be dissolved. The radiology business will be assigned to the Pharmaceuticals Division. Consumer Health will comprise the present Consumer Care Division. The Bayer CropScience subgroup will become the Crop Science Division. As a business unit, Animal Health will report directly to Condon, who oversees Crop Science.

This integration will also be reflected in Bayer’s brand architecture. In the future, the company said it will focus exclusively on the Bayer corporate brand and its product brands. The divisions will not have separate brand identities.

The Crop Science Division — Bayer’s agriculture business — will be active in the seed, chemical and biological crop protection and non-agricultural pest control markets; while Animal Health provides products and solutions to prevent and treat diseases in companion and farm animals.
Managing through volatile dairy cycles

By KRIS WALESCHN

The dairy industry in 2015 is experiencing a down cycle similar to 2000 and 2012. Last year at this time, producers were seeing record-high milk prices, while the current milk price is $9/cwt. less. Unfortunately, farm expenses do not decrease accordingly, and the challenge is sustaining a business when income is dramatically reduced, according to Virginia Ishler, Pennsylvania State University Extension dairy specialist.

“This downturn in the cycle is not new and is similar to what was experienced in 2009 with extremely low milk prices and in 2012 with extremely high feed prices,” Ishler noted. “There are strategies that can be implemented to survive these volatile cycles.”

As in any business, Ishler said there are short-term and long-term plans. Since the milk price projections do not look promising, she said implementing strategies now is paramount.

“The first step is to short-change the cows on nutrition. Milk income has to be optimized, and with a low milk price, making ration changes that result in reduced milk production is not prudent,” she explained.

According to Ishler, there are ways to bring feed costs per cow more in balance. In 2014, for producers who were controlling feed costs, approximately 30% of their income went toward feed costs. Today, these same producers have costs hovering between 40% and 45% of their income, Ishler noted, adding that for the herds experiencing difficulty already, more than 50% of income is going toward feed costs.

“So far, weather conditions have been good for hay crop forage and corn for silage,” Ishler said. “Optimizing pasture inventories, allocating forages based on quality to the various animal groups and feeding a high-forage-based ration can be strategies to control purchased feed costs. Now is the time to start having a conversation with the nutritionists about what is double for the herd.”

According to Ishler, producers can focus on several management practices during these tough times, including revisiting feed management, testing dry matter contents and monitoring intakes for the herd or group. She recommended keeping feed in front of the cows 22 hours per day and providing a separate group for fresh cows and/or two-year-olds if facilities permit doing so.

Ishler urged producers who feed their herds total mixed rations to check the particle size to avoid sorting problems and to analyze the ration to confirm that it is being mixed properly. In component-fed herds, the grain scoops should be weighed to confirm weights on new feed deliveries to minimize overfeeding or underfeeding, she said.

“Some of these practices require a time commitment and minimal monetary expense; however, they can greatly affect animal performance and efficiency,” Ishler said.

The Penn State Extension dairy team’s work with cash flow plans over the last few years showed that the average gross milk break-even price was fairly consistently about $9.00/cwt. The projected gross milk price currently is around $16.00-17.00/cwt.

“When evaluating operations from the most to least profitable, the areas that don’t fluctuate much between groups are dairy direct expenses and most operating expenses,” Ishler noted. “The exceptions usually revolve around repairs and replacement parts. The same constant between herds with varying breakevens is their purchased feed cost — third forage and concentrates and the direct crop costs. This is the area having the greatest impact on cash surplus.”

Forage quality and quantity are the biggest factors in maintaining a positive cash flow, she said, adding that a long-term approach to surviving the downturns in the market cycle is to evaluate cropping strategies, which include double cropping and utilizing alternative crops.

“Implement best management practices to improve maintain the highest-quality forage for the lactating cows and the right-quality forage for the other animal groups. Producers who have embraced these concepts are better prepared to deal with the downturn in milk price and milk income,” she said.

Additionally, Ishler said monitoring must also include an economic component to determine if a management strategy is working or not. For lactating cows, she said the income over feed cost calculation is a good way to check that feed costs are in line with the level of milk production.

Dairy industry sustainability report released

The Innovation Center for U.S. Dairy, established under the leadership of dairy farmers, announced the publication of the “2014 U.S. Dairy Sustainability Report” to share the dairy community’s progress toward sustainability commitments and goals.

U.S. dairy farmers, importers and businesses work together to provide people with the nutritious dairy products they want in a way that is improving the social, economic and environmental sustainability performance of the dairy industry, the announcement said. In 2014, partnerships, knowledge sharing and activities from farm to table to community addressed the complex interconnections among food production, nutrition and health, economics and the environment.

“Dairy’s commitment underscores the vital role of milk and dairy foods within a global food system that supports healthy people and healthy communities,” said Tom Gallagher, chief executive officer of the Innovation Center for U.S. Dairy Management Inc. “Today, the U.S. dairy industry is playing a leading role in building a sustainable food system, sharing our learning and experiences in a way that can be used by dairy farmers and others in agriculture around the world.”

In addition to reporting on Innovation Center for U.S. Dairy-led research programs and activities, the sustainability report references specific actions being taken by more than 100 U.S. dairy farms, businesses and large consortia.

Dairy farmers in all 50 states are continuously innovating to meet the unit, environmental and social challenges in their region, the announcement said. Since 1944, milk production has quadrupled, but the industry uses 90% less cropland, consumes 65% less water and emits 63% fewer greenhouse gases (J.L. Capper, R.A. Cady and D. Bauman, 2009).

Highlights from the sustainability report include:

- Continuous improvement in climate adaptation is an integral part of the dairy community.

The dairy industry is committed to employing climate adaption strategies and creating business value through a portfolio of greenhouse gas reduction projects.

- For example, the dairy industry voluntarily worked with the U.S. Department of Agriculture, Environmental Protection Agency and U.S. Department of Energy to develop the “Bio- gas Opportunities Roadmap,” released in August 2014, the roadmap outlines voluntary strategies to reduce methane emissions and develop a robust bioenergy market.

- Dairy farmers, importers and businesses support their local communities and address hunger.

Dairy’s contributions extend well beyond the nutritional value and health benefits of milk and dairy foods and beverages. In 2014, the dairy industry continued its work with Feeding America to increase milk donations to local food banks across the country. Through a collaborative effort, the Great American Milk Drive delivered 283,000 gal. of milk to hungry families.

- Further, the dairy community is working to promote food recovery as an important approach for addressing hunger, safeguarding the environment and reducing costs.

- Partnerships continue to help advance dairy industry sustainability.

In 2014, the innovation center and World Wildlife Fund renewed their partnership for another two years to promote widespread dairy industry adoption of innovative, environmentally sustainable solutions as well as incremental improvements in existing dairy practices and technologies.

Also in 2014, as part of the “Sustainable Food for the 21st Century” project, a white paper was released that shares the insights of 52 thought leaders and experts about how to achieve a sustainable food production system by 2050.

The Innovation Center for U.S. Dairy is a forum for the dairy industry to work together pre-competitively to address barriers and foster innovation. Its board of directors includes 32 leaders representing key U.S. farmer organizations, dairy cooperatives, processors and brands.

U.S. takes food waste challenge

By JACQUI FATKA

A s the global population continues to grow, so does the need to reduce food waste. The U.S. Department of Agriculture and the Environmental Protection Agency announced the nation’s first-ever food waste reduction goal, calling for a 50% reduction by 2030. As part of the effort, the federal government will lead a new partnership with charitable organizations, faith-based organizations, the private sector and local, state and tribal governments to reduce food loss and waste in order to improve overall food security and conserve the nation’s natural resources.

Food loss and food waste in the U.S. account for about 31%, or 133 billion lb, of the overall food supply available to retailers and consumers, with far-reaching impacts on food security, resource conservation and climate change.

Agriculture Secretary Tom Vilsack said even though the U.S. enjoys the most productive and abundant food supply on the planet, too much of this food goes to waste (Infographic).

“An average family of four leaves more than 2 million calories, worth nearly $1,500, uneaten each year. Our new reduction goal demonstrates America’s leadership on a global level in getting wholesome food to people who need it, protecting our natural resources, cutting environmental pollution and promoting innovative approaches for reducing food loss and waste,” Vilsack said.

EPA estimated that the amount of food going into municipal solid waste in 2011 was 21.4%, or 77,000 lb. Food loss/waste is the single largest component of disposed U.S. municipal solid waste and accounts for a significant portion of methane emissions. Landfills are the third-largest source of methane in the U.S.

Furthermore, experts have projected that reducing food losses by just 15% would provide enough food for more than 25 million Americans every year, which would help sharply reduce the incidence of food insecurity for millions.

“Let’s feed people, not landfills,” EPA Administrator Gina McCarthy said. “By reducing the food we lose in landfills, we cut harmful methane emissions that fuel climate change, conserve our natural resources and protect our planet for future generations.”

She noted that the recent announcement “presents a major environmental, social and public health opportunity for the U.S., and we’re proud to be part of a national effort to reduce the food that goes into landfills.”

Recently, USDA has launched a wide variety of initiatives to reduce food loss and waste including a mobile app to help consumers safely store food and understand food date labels, a new guidance for manufacturers and importers on donating mislabeled or sub-spec foods and research on innovative technologies to make reducing food loss/waste more cost-effective.

USDA said it will build on these successes with additional initiatives targeting food loss/waste reduction throughout its programs and policies.

Private-sector support

In 2013, USDA and EPA launched the U.S. Food Waste Challenge to create a platform for leaders and organizations across the food chain to share best practices on ways to reduce, recover and recycle food loss and waste.

By the end of 2014, the U.S. Food Waste Challenge had more than 4,000 active participants, well surpassing its initial goal of 1,000 participants by 2020.

Erin Fitzgerald Sesson, senior vice president of global sustainability at the Innovation Center for U.S. Dairy, said under the leadership of the nation’s dairy farmers, the innovation center is working to promote a more sustainable food system.

“Recognizing that food recovery is an important approach for addressing hunger, safeguarding the environment and reducing costs, we applaud the establishment of a national goal for food waste reduction,” she said. “Likewise, dairy farms and businesses are making public commitments to measure, reduce and recycle food waste, including participation in the Environmental Protection Agency Food Recovery Challenge and the U.S. Food Waste Challenge.”

Kellogg Co. has said it believes that, as a global food company, it has a significant role to play in helping end hunger, achieve food security, improve nutrition and promote sustainable agriculture.

“We are committed to doing our part to halve per capita global food waste at the retail and consumer level and to reduce food losses along the production and supply chains, including post-harvest losses, by 2030,” Kellogg vice president Kris Charles said.

“Food waste is a critical issue facing food retailers,” said Jason Wadsworth, sustainability manager for Wegmans Food Markets, a grocer in the Northeast. “Recognizing food recovery as an important approach to addressing hunger, protecting our natural resources and minimizing costs, we applaud the establishment of a national goal for food waste reduction.”

Albertsons, another grocer, is looking to “focus on source reduction as well as providing food to other good causes, such as hunger field organizations and animal food.” In its contributions to helping meet the goal, Albertsons senior vice president Jonathan Mayes explained.

USDA and EPA will also continue to encourage private-sector foodservice companies, institutions, restaurants, grocery stores and more to set their own aggressive goals for reducing food loss/waste in the months ahead.

Organizations such as the Consumer Goods Forum, which recently approved a new resolution to halve food waste within the operations of its 400 retailer and manufacturer members by 2025, are helping lead the way, the agencies said.

Hunger relief

Hunger relief groups have been brought in as an integral part of this national goal to combat food waste. More than 49 million Americans live in food-insecure households, yet 31% of the U.S. food supply is wasted.

“Food retailing is an important way that we can help bridge the gap between the manufacturers, producers, distributors and consumers who have too much food and our neighbors who are struggling to put meals on their tables regularly,” said Jilly Stephens, executive director of City Harvest.

Feeding America, a leader in recovering and donating nutritious food to feed struggling Americans, said its network of food banks and food rescue organizations has first-hand knowledge of the challenges involved in reducing food waste.

Chief supply chain officer Bill Thomas said Feeding America is excited to work with USDA, EPA and the food industry “to make these food waste reduction goals a reality.”

For more information on the initiatives, visit www.usda.gov/oe/foodwaste.
Fermentation, enzymes can

by combining fermentation with enzyme addition. This was true for several nutrients, but especially for phosphorus.

Enzyme addition and fermentation each have advantages and are complementary processes from pigs fed each diet and compared them with pigs fed diets containing no canola meal.

Liver weights were greater in pigs fed increased amounts of CM, kidney weights decreased as the inclusion of CM increased. Thyroid gland weights increased as the inclusion level of CMA increased. Reorted. Increasing the inclusion level of canola meal, regardless of variety, raised bone ash percentage relative to pigs fed diets containing no canola meal.

Thyroid hormone production decreased as the inclusion rates of CMA and CM increased. No differences in heart or bone weights, complete blood count or blood urea nitrogen were observed among pigs fed the different diets, Sten noted.

The researchers determined that adding canola meal to the diets did not affect average daily gain. Average daily feed intake was decreased with increased inclusion of canola meal, regardless of variety. The gain:feed ratio increased with a greater inclusion of CMA or CM-CV in the diets, but this did not hold true for CMB in the diets, Sten said.

"While some differences in organ weights and thyroid hormone secretion were observed in pigs fed different amounts of high-protein or conventional canola meal, these differences did not affect growth performance," Sten said.

These results indicate that either conventional or high-protein canola meal can be used in diets for weanling pigs at an inclusion rate of at least 20% and probably as much as 30%.

The research was published in a recent issue of the Journal of Animal Science.

Colostrum production

In sows, litter size is an important factor for colostrum production, according to results from a study carried out by researchers from Aarhus University and the University of Copenhagen in Denmark.

Neonatal pigs are highly dependent on energy-rich colostrum from the sow because the piglets are born with limited energy reserves in the form of glycogen.

Sufficient intake of colostrum and milk is essential for the piglet’s survival from birth to weaning. It is therefore important to have a handle on what affects the sow’s production of colostrum and milk, an announcement said.

The ability to produce colostrum and milk varies greatly among sow
boost digestibility of pig feed

and can be affected by a range of factors, such as nutrition, genetics, management, environment, health, farrowing characteristics and litter characteristics. The project investigated more precisely how the various factors interact with sow productivity. A total of 121 sows and 2,044 piglets were used in the study, which was carried out at the Aarhus research center, Aalborg University. Sow productivity was defined as colostrum yield, time of lactation start, milk yield during the shift from colostrum to milk production and average milk yield per week during the whole lactation period. The factors investigated included sow nutrition, litter characteristics, farrowing characteristics and composition of colostrum and milk.

According to the news release, litter size turned out to be a crucial factor for sow productivity during the colostrum phase and during the rest of lactation. That means farmers should focus on litter size when feeding lactating sows, the researchers said.

The project also found that sow productivity during the colostrum period and at the beginning of lactation had a positive effect on milk yield during the rest of lactation. “The start of lactation possibly affects the lactation curve. Our results indicate that an early start of lactation has a positive effect on milk yield throughout the whole period,” said senior scientist Peter Kappel Thøll from the Aarhus department of animal science.

The milk protein content of the sow’s milk decreased in the high-yielding sows, which could indicate that these sows were undernourished with regard to protein or essential amino acids, the researchers concluded.

It is important to be aware of high-yielding sows’ feed consumption and perhaps give them extra protein supplement, they added.

“It looks like it is worthwhile to focus more on sow production during the colostrum period and the beginning of lactation because there is a positive correlation to milk yield in the rest of the lactation period. Conditions around the time of farrowing can be the key to improving sow productivity to the benefit of piglet survival and growth,” Thøll said.

RODENT CONTROL IS A CRITICAL COMPONENT OF BIOSECURITY

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ADDDING dietary fiber to nursery diets generally results in reduced average daily feed intake (ADFI), average daily gain (ADG) and energy digestibility.

However, limited research has shown that the inclusion of moderate amounts of certain fibers may reduce the incidence of postweaning diarrhea (PWD) and improve the growth performance of weaning pigs.

It has been theorized that if postweaning diets contain appreciable amounts of insoluble fiber, such as oat hulls, straw or wheat middlings, these may affect the motility and transit time of the digesta throughout the gastrointestinal tract and negatively affect pig performance.

If highly soluble fiber ingredients, such as beet pulp, are incorporated into the postweaning diet, it may increase digestive viscosity and the rate of feed passage, which may result in an increase in the incidence of PWD.

The effects of fiber in postweaning diets are generally thought to be the hygienic conditions of the nursery, which affects the health status and growth of postweaning pigs. Healthy pigs will have greater ADFI and growth rate compared to unhealthy pigs.

Swine researchers J.D. Berrocoso, D. Mendoza, F. Gusman, B. Saldana, L. Comun and G. Mateo of Universidad Politecnica de Madrid in Spain conducted two experiments to study how different sources and levels of fiber affected the growth performance and incidence of PWD under optimal or poor hygienic conditions in the nursery.

Four fiber sources were evaluated in this study. The basic analysis is summarized in Table 1.

Wildland/urban interface growth ups ecosystem risks

PEOPLE and habitat intersect in the wildland/urban interface (WUI)—a geography that now includes about one-third of U.S. homes within just 10% of the nation’s land area.

Both numbers are growing, according to a new U.S. Department of Agriculture Forest Service map book summarizing the extent of WUI nationally and by state.

The maps give land managers, policymakers, fire managers and homeowners a valuable new source of information on housing density, land ownership, land cover and wildland/vegetation cover in WUI areas in the contiguous U.S.

The 2010 Wildland-Urban Interface of the Conterminous United States was developed by lead author Sebastian Martinuzzi with the University of Wisconsin-Madison; Susan Stewart, formerly a research social scientist with the Forest Service’s Northern Research Station who is now with the University of Wisconsin-Madison; Miranda Mock-rin, a research scientist with the Forest Service’s Rocky Mountain Research Station; and the map and the data behind it are available online at www.nws.fs.fed.us/pub/pubs/48642.

Michael T. Raines, director of the Northern Research Station and the Forest Products Laboratory, said the WUI map is “a timely and important science product that shows us how deeply interconnected people are with natural areas, particularly in the Northeast. Scientists have generated data that can expand awareness of the wildland/urban interface and the risks associated with it for both people and natural resources.”

To be considered an interface of wildland and urban areas, an area must have at least one structure per 40 acres. Scientists distinguish between “intermix” WUI, in which housing and vegetation intermingle, and “interface” WUI, where housing is near a large area of wildland vegetation.

In all regions of the country, WUI is growing, and with it, the concern about wildfires is growing, too. From Seattle, Wash., down the coast to San Diego, Calif., drought has created high fire potential in areas with medium to high housing density and very little water.

In the Northeast, increased housing density is making any fire a riskier situation. In the Southeast, development is occurring quickly in areas that have been historically managed by fire, setting up potential conflicts between homeowners and land managers, the Forest Service explained.

“In some areas, building is occurring in fire-prone areas, with little consideration of risks,” Stewart said. “People tend to think about recreational use when they build a home, not wildfire. Mapping the WUI is intended to raise awareness of where development is occurring so people and communities can be better prepared and reduce negative effects to homes as well as the environment.”

“The expanding wildland/urban interface is a critical issue for wildfire and land-use planning and the conservation of our forests,” USFS undersecretary of natural resources and the environment Robert Bonnie said. “More people, homes and infrastructure are at risk than ever before. As the WUI grows, our firefighters and land managers must commit greater resources to protect homes and property, which dramatically increases the cost of fire suppression.”

In 2015, 52% of the Forest Service budget was set aside for fire suppression, up from 1% in 1995. Currently, the agency has already exceeded the funding set aside for fire suppression and was forced to borrow funds meant for other Forest Service activities.

Wildfire is not the only concern when people are in closer proximity to habitat. Increased risk of invasive species and disruption of wildlife and ecosystems processes often accompanies human habitation, making the WUI map a guide to potential ecosystem vulnerability.
pigs vary by health status

as the level of fiber increased.

- The source and level of fiber did not significantly affect the growth performance of the pigs fed diets 2-9.
- The source of fiber affected nutrient digestibility. Sugar beet pulp and wheat middlings were more digestible than straw or oat hulls.
- Crude protein digestibility was not affected by the level or source of fiber.
- Increasing the level of added fiber from 2.5% to 5.0% did not affect the apparent ileal digestibility of any of the nutrients studied.
- Pigs fed the control diet had a similar mucosa morphology as the average of pigs fed diets 2-9.
- The crypt depth was greater in pigs fed oat hulls than in pigs fed wheat middlings but was intermediate in pigs fed straw or sugar beet pulp.
- Villus height was not affected by the source of fiber.
- Neither the source nor level of fiber affected the lactobacillus-to-Escherichia coli ratio.

Experiment 2

In the second experiment, husbandry and experimental procedures were similar to the first experiment, and the treatment diets also corresponded to the ones used in experiment 1.

The only difference was that, in this experiment, pigs were placed in experimental flat-deck nursery pens that had not been cleaned or disinfected—i.e., poor hygienic conditions. Also, the same truck was used to transport the piglets for experiment 2 as was used to transport the pigs from experiment 1.

Table 3 summarizes the growth performance and incidence of PWD from experiment 2.

The researchers provided the following interpretation and comments:

- Mortality was 3.2% and was not related to treatment.
- Growth performance for pigs fed diet 1 was similar to the average of diets 2-9.
- PWD tended to be greater in pigs fed diets 2-9.
- Neither the source nor level of fiber affected the growth performance or PWD of pigs fed diets 2-9.
- The apparent total tract digestibility of dry matter and gross energy was greater for pigs fed diet 1 than the average of diets 2-9. However, crude protein digestibility was not affected by treatment.
- The fiber source did not affect the digestibility of the dietary components, except for dry matter.
- The level of fiber did not affect the apparent total tract digestibility of any of the nutrients studied.

The results of this research showed that pigs reared under the optimal hygienic conditions of experiment 1 and fed the fiber-containing diets had 10.9% lower ADG, 8.8% lower ADFI, and a 2.3% increase in gain/feed compared to pigs fed the control diet. Pigs reared under the conditions of experiment 2 showed no significant effects but had numerically 0.6% lower ADG, 0.8% lower ADFI, and a 0.1% increase in gain/feed.

The Bottom Line

These results indicate that the inclusion of additional fiber from the fiber sources and the nursery diet used in this study increased PWD and reduced nutrient digestibility and growth performance in postweaning piglets reared under optimal health conditions.

For piglets reared under poor health conditions, there were no significant negative effects of supplemental fiber on growth performance. PWD was greater in pigs fed the fiber-supplemented diets under optimal or poor health conditions, but a much greater incidence occurred under poor health conditions.

Reference


*John H. Goell is president of Agri-Nutrition Services Inc., Shakopee, Minn. To expedite answers to questions concerning this article, please direct inquiries to Feedstuffs, Bottom Line of Nutrition, 7900 International Drive, Suite 650, Bloomington, Minn. 55425, or email comments@feedstuffs.com.

USDA grants conditional license for avian flu vaccine

HARRISVACCINES announced Sept. 21 that the U.S. Department of Agriculture has granted a conditional licensure for its Avian Influenza Vaccine, RNA. This is the first conditional license granted for a vaccine against highly pathogenic avian influenza (HPAI) since the outbreak began in the spring.

This is also the first USDA conditional license granted for an avian influenza vaccine utilizing the company's rapid response Siiravax platform technology, which allows the vaccine to be easily updated to match current and future strains of avian influenza, according to the announcement.

While this is an important first step in implementing a vaccine strategy by USDA, Harrisvaccines said producers initially will have to wait for USDA authorization before acquiring the vaccine. USDA has called for a solicitation to create a stockpile of H5 avian influenza vaccine this fall; Harrisvaccines is currently pursuing this opportunity.

"The creation, testing, and regulatory approval of the vaccine was a real joint effort by USDA's Agricultural Research Service (ARS), the Center for Veterinary Biologies and Harrisvaccines," said Dr. Mark Mogler, head of research and development at Harrisvaccines. "The ARS Southeast Poultry Research Laboratory provided both the gene needed to prepare the vaccine at Harrisvaccines and the proper facilities for efficacy testing in chickens."

Harrisvaccines vice president Joel Harris added, "When H5 was confirmed in the spring of this year, our team immediately applied our rapid response technology to bring a solution to Iowa and Midwest poultry and egg producers. Although we cannot sell the vaccine today, we are in a better position to apply this robust and rapidly produced vaccine if and when the virus reemerges."

USDA generally grants conditional licenses to an emergency or unmet need. A conditionally licensed product must show a reasonable expectation of efficacy, safety, and potency. Further efficacy and potency testing is ongoing.

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Extra litter can add $250m

It’s not news that keeping sows in the herd longer is a smart strategy, according Dr. Jon Bergstrom, senior technical support manager for DSM Nutritional Products. Not only have the investment costs in older sows been covered, but they have a greater capacity to produce larger litters with heavier weaning weights.

How can an additional litter affect the industry’s bottom line? What does an ideal parity structure look like?

Bergstrom explained that an extra litter from each sow could generate additional income very quickly.

“If each sow in the U.S. produced one more litter in her lifetime, the U.S. swine industry would generate another $250 million of net value for the pork industry,” he said, crediting the fact that sows past parity three or four have met their breakeven point and started generating profit.

The current gap. The room for economic growth is highlighted by a gap in potential and performance, which is shown through PIC data (Table).

“The suggested performance target for optimal profit is to have an average herd parity of 3.5, but even the top 25% of U.S. farms are only at an average herd parity of three,” Bergstrom said. “Many farms are below an average of three. These sows are not even reaching their breakeven point before being culled.”

Similar early culling trends are revealed when looking at the average age of removal from the herd. The PIC target for sow removal is 5.5 years of age, yet the best in the business are culling sows at an average age of 4.5 years.

Why are we not achieving our performance targets and the goal of 30% or fewer voluntary culls? We are not achieving these goals, because we have far too many sows being removed for poor reproduction, locomotion problems or simply poor performance,” Bergstrom said.

Ideal parity structure. Although higher-parity sows are generally more profitable, Bergstrom said there are benefits to raising healthy gilts as well.

Gilts and lower-parity sows are equally as important as sows because they represent the newest genetics and are the future of the herd. For this reason, a balanced parity structure with representation from all ages is ideal (Figure).

“If fed correctly, the higher-parity sows are better able to perform today, while the gilts are the future economic generators of the herd,” Bergstrom explained.

To promote balance in the herd, Bergstrom recommended formulating rations based on parity. An often overlooked part of this formula is high-quality vitamins and minerals.

“If we feed sows to restrict energy intake and manage body condition, the amount of vitamins and trace minerals per pound of bodyweight declines for older sows unless we make adjustments to the diets that they are going to be fed,” he said. “We need to make sure we are feeding sows adequate levels of high-quality nutrients, including vitamins and trace minerals, that are needed to support sow longevity and a greater number of healthy piglets. The correct nutrition is the fuel that will help them reach their genetic potential.”

Better bacon

Improved bacon could soon be on its way. Bacon is one of the most popular cuts of pork, and finding a way to provide consumers with an even better product is the focus of research at Kansas State University.

Terry Houser, an associate professor in the department of animal sciences and industry, is exploring what level of pork belly fat saturation will result in longer shelf life and better flavor.

Changes in dairy industry benefit cow health, welfare

Changes in the dairy industry in recent decades have benefited the health and welfare of not just dairy cows but consumers, too.

A team of dairy science experts provided insights into these changes, as well as the science behind them, in the current issue of the Journal of Dairy Science. They also identified knowledge gaps and research needs.

“Economic pressures, technological innovations, demographic shifts, consumer expectations and an evolving regulatory framework have all contributed to the rapid changes occurring in the global dairy industry,” explained lead investigator Herman Barkema, a professor with the department of production animal health at the University of Calgary in Alberta. “These changes have had, and will likely continue to have, profound effects on the health and welfare of dairy animals, and on management practices and systems for dairy herds.”

Barkema and his colleagues examined key changes taking place in the dairy industry in North America, Europe, Australia and New Zealand, the implications of which are relevant for the dairy industry in most developed and developing nations.

The main trends they found include:
- Fewer farms but a larger herd size;
- More dairy farms depending on hired (non-family) labor;
- Regular professional communication and establishment of farm-specific protocols essential to minimizing human error and ensuring consistency of practices;
- Increased average milk production per cow, partly because of improvements in nutrition and management but also because of genetic selection for milk production;
- Rapid adoption of new technologies (e.g., automated calf feeders, cow activity monitors and automated milking systems);
- Increased requirements for farmers to adopt higher standards for food safety and biosecurity, to rely less on the use of antimicrobials and hormones and to provide assurances regarding animal welfare in order to comply with regulations and remain competitive;
- Increases in herd size and response to animal welfare regulations in some countries, which together have led to a decrease in the proportion of dairy herds housed in tie-stalls;
- Fewer farmers letting their dairy cows graze in the summer in countries that traditionally practiced seasonal grazing, and
- An increased proportion of organic dairy farms globally, particularly in Europe.

The authors identified several opportunities these changes offer for the future, such as:
- Given the pressure to decrease the use of antimicrobials and hormones, conventional farms may be able to learn from well-managed organic farms.
- Increased adoption of new technologies will enable farmers to access rich data sources that can aid in further improving animal health and welfare. Because the potential is still largely unrealized, this will require more training of dairy farmers, their employees and their advisers.
- Genetic and genomic selection for increased resistance to disease offers substantial potential benefits but will require collection of additional phenotypic data.
- The possibilities of using milk for disease diagnosticians and monitoring are considerable. We expect that dairy herd improvement associations will continue to expand the number of tests offered to disease diagnoses and pregnancy,” Barkema added. “There is every expectation that changes in the dairy industry will be further accentuated and that additional novel technologies and different management practices will be adopted in the future.”
more for pork industry

Currently, bacon used in the fast-food service sector, which includes restaurants, is stored frozen and is not vacuum packaged, he said. This method can lead to off-flavors in meat with higher levels of unsaturated fat.

Houser and his team are studying how a pig’s iodine level — a measure of fat saturation — influences the shelf life of bacon. He said if bacon fat is too unsaturated, it could cause the fat to be soft and undesirable to consumers. Also, unsaturated fat causes problems with slicing the bellies once they are cooked and smoked.

The theory behind this research, Houser said, is that when pigs have relatively high iodine levels, it results in problems with the quality of bacon from those pigs’ bellies.

“Pigs with relatively high iodine levels have a more unsaturated fat in the belly, which means those bellies will be softer and more prone to increased rates of lipid oxidation,” Houser said.

Increased rates of lipid oxidation have been linked to a greater occurrence of rancid flavors in meat products, he explained. Additionally, soft bellies are challenging to slice with commercial meat processing equipment and may result in lower slicing yields for the bacon manufacturer.

“We wanted to see what effects freezing has on lipid oxidation or off-flavor development in those bacon products,” Houser said. “The results showed us that bacon is very unstable once it is in frozen storage in a (hotel, restaurant or institutional) type of packaging system.”

Houser and his team’s ongoing research to create better bacon will explore ways to identify bacon that is higher in unsaturated fat and how to make the fat more stable in frozen storage.

Feed efficiency conference
Kansas State University and Iowa State University are teaming up to host the International Conference on Feed Efficiency in Swine Oct. 21-22 at the Hilton Hotel in Omaha, Neb.

“We’re excited to bring together swine producers — owners and managers — with scientists — from geneticists to nutritionists and extension specialists — to discuss a wide range of topics related to feed efficiency, including making an antibiotic-free management system work,” said Mike Tokach, extension swine specialist with Kansas State Research & Extension. “Anybody interested in lowering costs of production by improving feed efficiency of growing pigs or the sow herd should plan to attend.”

The target audience also includes those who currently work in feed processing and the pharmaceutical sector as well as students planning to work in those sectors.

The program will cover the results of a five-year “Feed Efficiency in Swine Research” project conducted by Kansas State, Iowa State and three international universities. More than 40 presentations from university and swine industry experts will be available in a program that blends science and application.

“The program committee made an extra effort to present new information that answers such questions as whether intensive, multigeneration selection for feed efficiency results in pigs that are more easily stressed, more susceptible to disease or more likely to produce poor-quality pork,” said John Patience, Iowa State professor of animal science. “This is just one of many topics that will be addressed at the two-day event.”

The cost to attend is $200 per person for the first 400 people to register. After that, the fee is $300 a person. Students can register for $60.

More information, including online registration, is available at www.swinefeedefficiency.com/icfes.html.

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HALF of all workers on U.S. dairy farms are immigrants, and the damage from losing those workers would extend far beyond the farms, nearly doubling retail milk prices and costing the total U.S. economy, according to a new report commissioned by the National Milk Producers Federation (NMPF).

The report, conducted by Texas A&M University AgrilLife Research, which included the results of a nationwide survey of farms, found that one-third of all U.S. dairy farms employ foreign-born workers, and those farms produce nearly 80% of the nation’s milk.

It estimates that a complete loss of immigrant labor could drive one in six dairy farms out of business and cut U.S. economic output by $32.1 billion, resulting in 288,000 fewer jobs nationwide. Some 77,000 of the lost jobs would be on dairy farms.

Retail milk prices, the report says, would increase 90% if all immigrant labor was lost. That would drive the supermarket price of a gallon of milk, which averaged $3.37 in June, to approximately $6.46.

“The findings of the study clearly illustrate the importance of immigrant labor on dairy operations across the U.S. and the impact of their potential loss on consumer retail prices,” said Dr. Parr Rosson, head of the Texas A&M department of agricultural economics and part of the study team.

The survey — an update of one done in 2009 — was conducted last fall, before immigration became a hot-button issue in the presidential campaign. A comparison of the two surveys showed that the number of immigrants working on dairy farms increased by 35%, or nearly 20,000 people, in six years. The portion of the milk supply coming from farms with immigrant labor increased by 27%.

While the survey results do not distinguish between documented and undocumented foreign-born workers, 71% of survey respondents said they had either a low or medium level of confidence in the employment documents of their immigrant workers.

As a result, the report says a majority of dairy farmers are very concerned about actions such as immigration raids or employee audits. Despite this, 80% of dairy farms surveyed said they continue to hire immigrants.

“This report reinforces the urgent need for Congress to address this issue,” NMPF president and chief execu-
immigrant workers vast
tive officer Jim Mulhern said. “Farms that rely on hired foreign workers need their current labor force as well as an effective program to ensure an adequate future workforce, and the way to do that is to enact comprehensive immigration reform.”

Randy Mooney, chair of the NMPF board and a dairy farmer from Rogersville, Miss., said the notion that immigrants are taking these jobs away from American workers is simply not true. “Dairy farmers have tried desperately to get American workers to do these jobs, with little success — and that’s despite an average wage that is well above the U.S. minimum wage,” he explained. The Texas A&M Agrilife researchers estimated that 150,418 employees worked on U.S. dairy farms in 2013 and that 51% of them, or 76,968, were immigrants. The study found that the average hourly wage on dairy farms in 2013 was $11.54 — 16% higher than in 2008. By comparison, the federal minimum wage is $7.25 per hour.

The report concludes that a total loss of immigrant labor would reduce the size of both the nation’s dairy herd and U.S. milk production by nearly a quarter, and more than 7,000 dairy farms would close.

“Through economic modeling, the researchers estimated that more than a third of the total economic damage from losing all immigrant labor on dairy farms would be from reduced farm milk sales. The rest would come from losses in employee compensation, reduced purchases by farm employees and lost sales to businesses that support dairy farms, such as feed and equipment dealers. Likewise, the researchers said, milk sales support many more jobs beyond the farm than on the farm. As a result, while a total loss of immigrant labor on dairy farms would mean 76,968 fewer people working on farms, it would also mean the loss of 131,240 jobs outside the farm.” Mulhern noted that lawmakers’ failure to act on immigration reform is also preventing economic growth and job creation in other ways. “The lack of a reliable source of workers is causing farmers to second-guess decisions to expand,” he said. “That’s economic activity that’s lost to both rural and urban communities — all because Washington (D.C.) won’t act on immigration reform.”

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Dairy HACCP

* From page 1

“Drug residues are not a drug problem but a people problem,” Mrdutt noted.

The objective is to identify potential hazards and determine critical control points to limit these hazards. Proper implementation of the Food Armor program will ensure food safety as well as transparency and accountability for appropriate drug use on a farm.

The program evolved into a certification process for farms instead of individuals, Garber explained. Veterinarians become accredited by attending training workshops and demonstrating mastery of the program.

Once accredited, veterinarians can then grant certification status to a farm when it demonstrates full implementation and maintenance of a six-section HACCP plan for proper drug use.

The six HACCP sections include: (1) the veterinarian/client/patient relationship, (2) the drug list, (3) protocols, (4) standard operating procedures, (5) records and (6) veterinary oversight (Infographic).

Participation in the Food Armor certification program is voluntary for farms, but it allows farms to implement an effective risk management strategy for on-farm drug use.

The WVMA Food Armor program will be independently third-party verified by Validus, an ISO 9001:2008 certified and ISO 65 accredited company, to ensure integrity of the entire program.

More information is available at www.foodarmor.org. ■
Ethics of animal ag need to be considered.

By SARAH MUIRHEAD

The window through which one sees animal welfare can vary greatly depending upon the angle taken.

The windows of cattle producers and bovine veterinarians, for instance, tend to be based on their experiences, training and level of knowledge of production practices, while the windows of activists and the public are often based more on perception.

In addressing attendees of the 48th annual conference of the American Association of Bovine Practitioners in New Orleans, La., Dr. David Daley of California State University-Chico told the veterinary community that it can change this view by doing the best job possible in not only communicating effectively with the public but also in helping on the farm with situations of mismanagement and mistreatment they may encounter.

For the most part, he said, the industry is doing the right thing, but if something can be done better, get involved, for those are often the situations that are used to drive ballot initiatives aimed at restricting how producers operate.

“We all know that when issues move to the ballot box, we lose,” Daley said.

In providing tips on how to better communicate about animal agriculture, Daley said it is important to recognize that while science may provide the answers, it does not solve ethical questions the public may have. Quite honestly, the public doesn’t trust scientists, he said, noting that a common perception is that scientists can be bought or their results spun.

“At the public policy level, science still has value, but in the public arena, it is no longer held in high regard,” Daley added.

Likewise, using economics as justification for certain production practices is a weak argument agriculture often uses to counter questions that are thrown its way. To say, “We treat our animals well, because if we don’t, we won’t make money,” sends the wrong message and certainly doesn’t convince the public that the animal agriculture industry truly cares about the animals, Daley said.

While tempting, don’t step up to defend agricultural practices that you know little about, and defend only those that are defendable. “We, as an industry, lose credibility when we try to defend everything or things we don’t know about,” Daley said.

Agriculture’s inability or unwillingness to listen is another concern Daley pointed out. He noted that no value can come from attacking everyone who disagrees on an issue. It is much more effective to listen and not be so quick to judge others who disagree or think differently.

“Good people can look at the same issues differently,” Daley said, noting

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be communicated as well

that it doesn’t mean one is wrong and one is right.

Recognize that the lunatic fringe is not the general public and, in fact, isn’t all that worthy of engaging.

Daley noted that there are, indeed, extremists on both sides of the animal welfare discussion. Those in agriculture who claim social elite status as food producers or generation-old producers and don’t want anyone telling them what to do because they “know all” are extremists in their own right.

Another practice that benefits no one is criticizing and mocking non-conventional production systems. The truth of the matter, Daley said, is that there is room for different methods of production, and the market should determine their success. We need to stop the bickering and name calling and let the market forces work, he said. Interestingly, Daley cited a survey conducted of 200 California cattle producers that found that 65% of the participants indicated that they believe animals have rights — not in the sense that they should be allowed to vote, etc., but that they have the right to proper care and welfare.

Production practices within agriculture continue to evolve, and that’s a good thing, but while we often talk about these practices, we don’t always communicate about them as well as we should, and that is something we all need to do a better job of, Daley said.

WTO holds final COOL hearing

REPRESENTATIVES from the U.S., Canada and Mexico were in Geneva, Switzerland, Sept. 15-18 to attend the World Trade Organization’s arbitration panel hearing regarding U.S. country-of-origin labeling (COOL) and to present their respective calculations.

Canada has requested authorization to impose tariffs on more than $3.1 billion (Canadian) per year of U.S. exports. Mexico requested authorization for more than $71.3 million in retaliatory tariffs.

The U.S. has estimated the costs related to COOL arbitration at $91 million — an amount that disregards any valuation related to segregation of cattle, transportation issues or price suppression in the Canadian market.

Since WTO has already found those issues to be at the core of the COOL law’s trade violations, the Canadian Cattlemen’s Assn. said it is confident that the arbitrators will strongly consider Canada’s calculations.

Following the oral hearing, the WTO panel will most likely provide the three countries with a number of questions requiring written answers. After these have been received and considered, the panel is expected to release its decision on an authorized amount for retaliation later this fall. That decision will be final and not subject to appeal, enabling Canada and Mexico to proceed to implement the tariffs.

Chandler Goule, senior vice president of programs at the National Farmers Union, said “if arbitration levels come back extremely low, which I don’t believe will be the case, then most likely we won’t do anything, and we’ll maintain mandatory country-of-origin labeling as is.”

Instead, Goule expects WTO to come in at around $300-500 million of damages.

The farmers union has lobbied in favor of a legislative fix for COOL proposed by Sens. Debbie Stabenow (D., Mich.) and John Hoeven (R., N.D.) that would put in place a voluntary labeling scheme. However, Canada and Mexico have said the only way to avoid retaliatory tariffs is a full repeal of COOL.

The House passed a bill earlier this summer that would institute a full repeal. Sen. Pat Roberts (R., Kan.) introduced similar legislation in the Senate, but it has not come to the floor for a full vote.

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First steps to amino acid

There are steps nutritionists can take to help dairy herds better reach their full potential by balancing amino acids.

By JESSICA TEKIPPE

Amino acid balancing has become increasingly popular in dairy nutrition, yet nutritionists can sometimes find themselves being overwhelmed with the volume of information available.

The following article lays the foundation for steps nutritionists can take to help herds better reach their full potential.

Essential amino acids

The first step is to emphasize essential amino acids (EAs), not crude protein. Conventional but increasingly dated diet formulation is based on crude protein estimation with a safety premium to avoid amino acid malnutrition. Consequently, higher excretion of nitrogen-containing compounds results, because the protein supply is not matched as closely as possible to requirements.

What cows need is some combination of EAs in both ruminen-available and unavailable fractions. During the digestion process, proteins break down into amino acids that are absorbed into the bloodstream. These amino acids are then incorporated into new protein molecules.

Currently, dairy cows convert 35% of dietary nitrogen to milk nitrogen. Feeding practices for monogastric animals are seeking accumulation levels as high as 85%. The difference among species can be partially attributed to the current understanding and usage of amino acids.

Most efficiency issues with EAs in dairy cows result from the inability of productive tissue to capture the EA when it passes through mammary tissue. Mammary blood flow is a major part of the process, and research has found a connection between signaling and single-nutrient limitations, which leads to inefficiencies.

The rumin itself adds complexity, as the amino acids consumed in the diet may not be the same amino acids that reach the animal. In addition, rumen microbes have amino acid requirements. If the level of an amino acid is low, it will take longer for translation to occur and for the microbe to grow.

DMI

Another important step with amino acid balancing is measuring dry matter intake (DMI). Measuring DMI can be difficult with some herds and may require weighing back the refusal, yet knowing the actual DMI can affect the bottom line.

The DMI can vary from the ration as formulated to what is mixed to what cows eat after sorting. The Table illustrates the difference in grams of methionine and lysine supplied if the DMI is calculated incorrectly.

It is also recommended that the moisture content of forage be tested weekly to adjust the feeding rate in order to keep the actual pounds of dry matter consistent. It is recommended that forage rates be changed with any fluctuation in forage moisture greater than 2%.

The feedstuffs’ composition is also critical when balancing for amino acids. Many feedstuffs, especially byproducts, can vary in nutrient value and should...
balancing best practices

be tested to make sure they deliver the grams of amino acids wanted.

Other nutrients
Amino acids are important, but don’t overlook other nutrient needs. If other nutrient needs go unmet, the amino acids in the ration may be rendered useless.

In pigs, for example, lysine requirements are expressed with respect to net energy — the energy needed for the process of tissue protein synthesis.

In ruminant nutrition, the separation of energy and protein is impossible. The energy level of the diet has a large effect on feed intake. Differences in feed intake directly result in variations in milk yield potential, intake of protein and rate of digestion, which will affect rumen undegradable protein. Energy also affects microbial growth capacity and the ending fate of these amino acids. If energy is limiting, amino acids will be deaminated.

Amino acids are categorized as glucogenic or ketogenic amino acids based on whether or not their carbon skeleton can be converted to glucose (Figure). Another important factor in nutrient availability is the carbohydrate source. Providing various carbohydrate sources maximizes the ability of rumen microbes to provide much of the cows’ protein needs. Carbohydrate availability determines the rate of microbial growth in the rumen and the efficiency of utilization of ruminal ammonia.

Carbohydrate supplementation and source, starch degradability and synchronization of ruminal energy and nitrogen release may be key factors in improving the efficiency of nutrient utilization in ruminants.

Amino acid ratios
Another key practice is controlling the ratios of amino acids to each other. Body cells use active transport mechanisms to take up amino acids. The three different types of transport for amino acids are neutral amino acids (threonine, leucine, valine, isoleucine, phenylalanine, methionone, cystine/cysteine and tryptophan), basic amino acids (histidine, arginine and lysine) and acidic amino acids.

Within an amino acid type, one amino acid can compete for and inhibit the transport of another. Because of the potential negative effects of amino acids on each other, the factorial method may overestimate production responses when one amino acid is in excess.

For example, in one study where lysine was the first-limiting amino acid, extra methionone was supplemented, and milk protein production decreased.

For this reason, monitoring key ratios is critical. The appropriate ratio for lysine to methionine is around 2.85:1. The ratio is important because of intake control.

It has been proved that intake is controlled by oxidation of fuels in the liver. This can come from several sources, including excess amino acids. If there isn’t enough methionine or lysine, the excess of either is oxidized, releasing non-esterified fatty acids that suppress intake and affect the liver’s ability to produce glucose, the main precursor for milk production.

Finally, nutritionists must choose the most efficient way to provide amino acids to cows. The rumen uniquely takes up amino acids through two forms: the feed itself and rumen microbes. The amino acid profiles of microbial protein and milk are very similar. This makes microbial protein a high-quality protein similar to the animal proteins used in feeds.

The National Research Council (2001) predicted microbial protein production from the amount of predicted digested organic matter in the rumen. If the diet is limiting in ruminal degraded feed protein, predicted microbial protein production is limited. The amount of microbial amino acids can then be predicted based on the assumed amino acid profile of the microbial protein.

Amino acid requirements can also be met using rumen-protected amino acids. For example, supplementation with a rumen-protected lysine may achieve a lysine concentration in metabolizable protein that comes as close as possible to meeting the optimal concentration without oversupplying amino acids.

Nutritionists can help ensure that dairy herds realize the greatest return on investment possible by balancing for amino acids and supplementing as needed. The key to any new nutritional program is to have an open dialogue among everyone involved. □

Jessica Tekippe is manager of product development, ruminants, at Ajinomoto Heartland Inc., which has a rumen-protected lysine product.
Social concerns drive dairy cattle welfare

The survey was written by a team of Michigan State University and Kansas State University researchers. A total of 2,001 respondents from across the U.S. completed the survey.

Overall, about two-thirds of respondents reported consuming milk four times or more per week. Only 14% reported consuming milk less than once per week.

In order to understand how important dairy cattle welfare is to the U.S. public, respondents were asked to rate their level of agreement with which principles should underpin the U.S. dairy industry (Table 1). Higher average scores indicate strong agreement with the statements.

While the U.S. public generally agreed with all of the principles, the strongest agreement was with respondents indicating a safe food supply (61.5% strongly agreed). The least degree of strong agreement was with respect to being competitive in the global dairy market.

Generating an affordable supply of dairy products was strongly agreed upon by 51.5% of respondents. Conserving and protecting the well-being of dairy cattle was one of the principles of medium importance relative to the other principles.

There are many parties that might supply information to the public regarding cattle welfare, from producers to processors to grocers and restaurants. Table 2 summarizes respondents' views about the accuracy of many parties involved with the U.S. dairy industry. For this Table, higher scores indicate that animal welfare information from that source is viewed as more accurate.

Respondents gave the U.S. Department of Agriculture the highest average score. The Humane Society of the United States (HSUS) was second, especially tied with the American Veterinary Medical Assn. (AVMA). The third tier of accuracy included the American Farm Bureau Federation (AFBF), National Milk Producers Federation (NMPF), International Dairy Foods Assn. (IDFA), local veterinarians, and People for the Ethical Treatment of Animals (PETA). Dairy cattle welfare information from grocers and restaurants was viewed as relatively inaccurate.

Note, however, that about one-third of respondents answered that they did not know or did not have an opinion of these sources. This might reflect that respondents had not previously considered these issues. It might also indicate a general unfamiliarity with farm and animal welfare-related groups.

We also were interested in who the U.S. public thought influenced the welfare of dairy cattle. Respondents believed that USDA and dairy farmers had the most influence over the welfare of dairy cattle (Table 3). In this case, the higher the value, the more influence that group is viewed as having over dairy cattle welfare.

NMPF, the national organization of dairy farmer cooperatives, which created the Farmers Assuring Responsible Management program to address dairy cattle welfare, was viewed as the next most influential in assuring dairy cattle welfare. After that was HSUS and IDFA, followed by consumers and veterinarians. Respondents seemed to recognize that consumers and consumer-related groups have a role to play in assuring dairy cattle welfare but believe farmers, with direct access to cattle, have the most influence.

Summary

This research summarized the results of a survey of U.S. public opinions and attitudes about dairy cattle welfare. Most respondents consumed milk several times a week, and most of this milk was purchased at a supermarket.

Generating a safe supply of dairy products was the most important principle for the U.S. dairy industry, according to respondents, although conserving dairy cattle welfare also had support. USDA was considered the most reliable source of animal welfare information.

USDA and farmers were viewed as the most influential parties affecting dairy cattle welfare. According to respondents, the U.S. public has a positive view of farmers. Maintaining that trust and remaining socially sustainable will continue to be an important responsibility for U.S. dairy farmers.

Addressing the knowledge gaps and associated opportunities identified in this research can be a valuable effort in building and sustaining this trust.

In 60 seconds

Nutreco expands: Nutreco announced the opening of a new animal nutrition premix plant in East Java, Indonesia, and the completion of an upgrade to its animal nutrition plant in Huan, China. Nutreco said the $15m investment in greater production capacity of premixes, farm minerals and young animal feed further strengthens the position of its Trouw Nutrition animal nutrition business in Asia. The East Java plant is Nutreco’s second premix plant in Indonesia and its fifth in Asia. It has a 12,000-ton premix and farm mineral capacity and will employ 20 people. The Huan plant, originally constructed in 1999, was designed primarily to produce compound feed. It has been upgraded to produce premixes, farm minerals and young animal feed to meet the growing demand for high-quality, sustainable animal nutrition products in central and southern China. It has a capacity of 75,000 tons and will employ 200 people. These investments underscore our commitment to the Asian market and enable us to further grow our business by helping our customers to increase their efficiency and profitability with value-adding nutritional solutions,” said Nikri Badman, managing director of the local business unit Asia managing director.
REG opens Grays Harbor biorefinery

RENEWABLE Energy Group Inc. (REG) celebrated the formal opening of the newest addition to its fleet of biomass-based diesel refineries with a ribbon cutting Sept. 15 at REG Grays Harbor LLC in Grays Harbor, Wash.

REG leaders were joined by state and local government, business, community leaders for the ceremony marking the transition to REG’s ownership of the former Imperium Grays Harbor biodiesel production and terminal facility, which has a nameplate capacity of 100 million gal.

In addition to its production capacity, REG Grays Harbor has 18 million gal. of on-site storage and a terminal that can accommodate feedstock intake and fuel shipments by truck, rail and deep-water vessels. The plant has 39 full-time employees.

“REG Grays Harbor’s addition to REG is a significant milestone for our company,” president and chief executive officer Daniel J. Oh said, noting that the plant is the company’s 11th — and now largest — biorefinery and its first West Coast production facility. “The transition has been seamless thanks to the dedicated employees here and to other teams within our company.”

Oh also thanked local government leaders in Hoquiam and Aberdeen, Wash., for working with REG during the transition and praised the work of the state’s congressional delegation and Gov. Jay Inslee for being champions of advanced biofuels.

Gary Haer, REG vice president, sales and marketing, told the crowd that production at the Grays Harbor biorefinery will aid the company’s efforts to grow biodiesel sales along the West Coast region, including in Washington, Oregon and western Canada as well as throughout California.

Haer added that “with the multi-modal capabilities at the terminal and port, we increase our flexibility to fulfill orders via the use of truckload, railcar or Panamax class tanker shipments.”

Local leaders welcomed REG to the area business community.

Today marks the beginning of an exciting new chapter for biodiesel production in Grays Harbor,” said Dru Garson, CEO of Greater Grays Harbor Inc. “We’re excited by the prospects of having REG as a community partner, as their track record of operating plants and reinvesting in the community is impressive.

REG is a leading North American producer of advanced biofuels and a developer of renewable chemicals. It utilizes a nationwide production, distribution and logistics system as part of an integrated value chain model to focus on converting natural fats, oils and greases into advanced biofuels and converting diverse feedstocks into renewable chemicals.

REG has 11 active biorefineries across the country, as well as research and development capabilities and a diverse intellectual property portfolio.

Liquid feed production increases roughly 1%

THE American Feed Industry Association’s (AFIA) Liquid Feed Committee released results on Sept. 15 of its “Liquid Feed Tonnage Report,” which reveals an overall increase of 1.08% in liquid feed production from 2013 to 2014.

The data provided statistical information on liquid feed production and estimated long-range trends occurring within the industry. The report will be available to government regulatory agencies for the betterment of the liquid feed industry, according to AFIA.

Eleven manufacturers from across the U.S. provided data for the latest annual survey. Companies that participated in the survey were required to provide manufacturing data for the previous two years.

The survey results are categorized into five liquid manufacturing segments that display the amount of tons produced per year while differentiating between the two corresponding years and the percentage.

Overall production of liquid feed supplements increased more than 20,000 tons between 2013 and 2014, with the majority of the growth occurring in range supplements — up 7% from last year’s survey — and in beef feedlots (Table). Dairy rations and blocks experienced modest declines; feed mill blends saw a 4% reduction in production from the 2013 level.

AFIA collects data each spring for the previous two years of liquid feed production. Since more feed is produced annually than reported, the organization said the survey results should be viewed as an indicator of tonnage trends.

Liquid feed tonnage report

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef feedlots</td>
<td>467,280</td>
<td>488,437</td>
<td>21,157</td>
</tr>
<tr>
<td>Dairy rations</td>
<td>571,635</td>
<td>557,417</td>
<td>-14,218</td>
</tr>
<tr>
<td>Range supplementation</td>
<td>398,378</td>
<td>426,385</td>
<td>28,007</td>
</tr>
<tr>
<td>Feed mill blends (excl. poured blocks)</td>
<td>186,200</td>
<td>186,163</td>
<td>-378</td>
</tr>
<tr>
<td>Blocks</td>
<td>252,247</td>
<td>244,906</td>
<td>-7,341</td>
</tr>
<tr>
<td>Total tons manufactured</td>
<td>1,884,863</td>
<td>1,905,252</td>
<td>20,389</td>
</tr>
</tbody>
</table>

Source: American Feed Industry Assn.
China buys large batch of U.S. soybeans

N a well-publicized visit, buyers from key Chinese agricultural companies converged in Des Moines, Iowa, on Sept. 24 and agreed to buy 484 million bushels of U.S. soybeans — a deal valued at 65.3 billion dollars and may be the largest ever deal arranged by the U.S. Soybean Export Council (USECC).

The 65.3 billion dollars for the buying event for Chinese importers brought in more than double the value of deals signed in 2013 or 2012, according to the export council.

USECC helped arrange the meeting, which has been held yearly for several years.

Jim Sutter, the council’s chief executive, said the deal may be the largest ever for the annual event. He speculated that the large amount may be due to this year’s low crop prices and to China having a slow start to buying U.S. soybeans this year.

“Prices have come down, and maybe there’s a good time to stock up,” he said.

China processes the soybeans into soybean meal and soybean oil, and with its livestock production on the rise, Sutter said the country may need the soybean meal as feed.

Details were provided on when the purchases will be made or shipped, but Sutter said the deal is expected to be done within the next 2017 crop year, which ends Aug. 31, 2016.

“Soybean demand is quite brisk in China. Crush margins have improved and livestock margins have improved,” he said.

China is the top importer of U.S. soybeans and buys about 25% of all U.S. soybeans, according to USECC.

The meeting in Des Moines brought together buyers from China and sellers that included Archer Daniels Midland, Bunge, Cargill, Louis Dreyfus and others.

Export sales
Soybean export sales were up 44% in the latest week and topped trade forecasts, with China as the leading buyer, the U.S. Department of Agriculture said in its latest weekly export report.

In addition to daily reporting, USDA noted that unknown destinations bought 11.5 million bushels of 2015-16 soybeans, and China bought 10.45 million bushels.

The second round of exports was in the weekly report. Some believe that the sale to “unknown destinations” may be for China.

In the latest weekly business, soybean sales of 48.3 million bushels (Table) were led by sales to unknown destinations, the Netherlands, Canada and others.

New-crop corn sales of 16.8 million bushels were down 20% from the previous week and missed trade forecasts. Those sales were led by Mexico, Colombia and Bangladesh.

Weekly export sales of 10.4 million bushels were down 25% from the previous week but were within trade forecasts and were led by the Philippines, Japan and China. About 1.1 million bushels of 2016-17 wheat went to unknown destinations, Guatemala, El Salvador and Panama.

Harvest advances
U.S. corn continues to mature.

The crop was rated 86% good/excellent in USDA’s latest progress report, with slight improvements in Kansas, Missouri and Ohio offsetting minor declines in Illinois, Iowa and Nebraska.

The corn harvest was 100% completed, compared with 73% last year and the 155% five-year average.

Old-crop, corn, slipped one point to 70% good/excellent condition. Nebraska dropped one point to 74%, although the remaining states gained one point. The good ratio dropped two points from a week ago.

A “windy, warm and mostly dry week aided crop maturity for the week ending Sept. 20,” the Iowa report explained. “Reports indicated that seed corn harvest was wrapping up, and corn harvested for grain has had widely varying moisture content.”

Slow farmer selling
The Midwest corn and soybean harvests should be finished, but the tough weather conditions and poor harvest weather, and 80-degree temperatures in the near-term forecasts, grain dealers said.

New-crop corn and soybeans trickled into elevators during the early rounds of harvest, but most of those deliveries have been against storage agreements as low prices have made farmers reluctant to sell much inventory just yet.

Up to 4 in. of rain fell in central Illinois, which slowed the harvest for a few days there, but combines were back in the fields after last week.

In central Iowa, some soybeans were being cut and delivered to elevators, but the pace has been slow. Early yields have been good, but at least one dealer was reluctant to offer yield reports because the volume has been small. Some soybean fields are still a few weeks away from harvest, he said.

Corn continues to be shipped by rail to the Southeast ethanol and poultry markets, but very little was going by barges to Gulf export ports, dealers said.

Soybean demand in river markets has dropped since the previous week, according to the Gulf basis losing about 5 cents. Vessels that were loading soybeans two weeks ago apparently got what they needed, according to the river source. Also, the advancing harvest has pushed up barge rates, which lowered cash bids to farmers.

For the week ended Sept. 10, USDA put weekly export inspections at 29 million bushel for corn, 18.5 million bushel for soybeans and 22.2 million bushel for wheat. The corn and wheat numbers were better than forecasts in a small margin, while soybeans matched forecasts.

Year-to-date export shipments for corn are down about 24% from a year ago, while soybean shipments are up nearly 12%.

This year is about 3.5 months into, and shipments are down 17.5% from last year’s pace.

Market recap
Corn and soybeans started the week higher but then slumped to the previous week’s levels as harvest progress and China’s large purchases of soybeans discouraged buyer interest.

Soybeans maintained some support throughout the week, however, the tough daily export sales and the hopes of good news from China’s buying delegation. China did buy a large batch in daily reporting and during the buying ceremony on Sept. 24.

Corn prices drifted lower as the week progressed, pressured by the ongoing harvest and the lack of export news that supported soybeans.

The wheat market was slightly higher for the week but still struggled as exports continued to disappoint due to ample supplies of lower-cost grain overseas. Late in the week, the International Grains Council raised its forecast for the current year’s global wheat ending stocks to a record high because of larger global production.
September dairy markets a ‘mixed bag’

Market Report

with KRISSA WELSHANS

September has been a mixed bag regarding dairy product prices on the Chicago Mercantile Exchange, according to Bob Crupp, professor emeritus at the University of Wisconsin Cooperative Extension.

Butter was $2.29/lb, the last week of August, but has shown strength for all of September, with the current price at around $2.025/lb. Nonfat dry milk, which was 77 cents/lb, the last week of August, has also shown some strength and is now at 85.25 cents/lb.

With both butter and non-fat dry milk prices improving, Crupp said the September Class IV milk price was $14.86/cwt., compared to $12.90/cwt. in August (Figure 1).

On the other hand, Crupp said cheese and dry whey prices have weakened.

The price of 40 lb. cheddar blocks was $1.6576/lb, the last week of August, improved to $1.75/lb on Sept. 1 but closed at $1.59/lb. on Sept. 23. Cheddar barrels were $1.50/lb, the last week of August, improved to $1.67/lb. on Sept. 1, and closed at $1.46/lb. on Sept. 23.

Dry whey, which was 38 cents/lb. in mid-August, has fallen to around 25 cents/lb. With these lower prices, Crupp said the September Class III milk price will be about $15.85/cwt., compared to $16.27/cwt. in August (Figure 2).

“The outlook for milk prices for the remainder of the year and into 2016 is not for higher prices,” he noted. “Once stocks of butter and cheese are above levels for the holidays by October or early November, butter and cheese prices will likely weaken. Milk production is key but the outlook is better than above average and at levels to build stocks.”

The U.S. Department of Agriculture’s latest dairy product report showed that butter production for July was 3.2% lower than a year ago, but Crupp noted that cheddar cheese production was 4.7% higher, and total cheese production was 3.1% higher. Nonfat dry milk production was 6.9% lower, but skim milk powder production was 23.0% lower, and dry whey production was 9.8% higher, according to the report.

“While restaurant and service demand has been strong for both butter and cheese, dry whey export sales are much lower, and the result is that stocks are building,” Crupp said.

Compared to a year ago, July exports decreased 58% for butter and 21% for cheese. Nonfat dry milk exports and dry whey also decreased by 25% and 8%, respectively.

USDAs also reported that July 31 butter stocks were 40.7% higher than a year ago. American cheese stocks were up 5.1%, total cheese stocks rose 6.7%, nonfat dry milk stocks up 11.6% and dry whey stock increased 16.2%.

“Dairy exports are not expected to improve prior to the second half of 2016. With the two largest importers of dairy products — China and Russia — importing much less dairy product than early in 2014, along with the level of world milk production, world dairy stocks have built to surplus levels,” Crupp noted.

World dairy product prices have fallen to levels not seen in a decade and are well below U.S. prices, he added.

With higher U.S. prices, imports of butter and cheese have increased; however, Crupp said world price appears to have bottomed out.

“With exports not expected to improve much prior to the second half of 2016, the level of milk prices will depend heavily upon domestic sales and the level of milk production,” he added.

USDAs milk production figures for August showed the smallest increase this year, at 0.3%, compared to 0.5% increase for July. Milk cow numbers and milk prices have held steady, according to USDA. Milk cows have increased by 3.1% for the past three months, which is 3,000 head lower than the peak this year in May but still is 0.6% higher than a year ago. Crupp noted. Milk cow numbers have increased by 0.3% compared to July 2014.

USDAs forecasted total 2015 milk production to be 1.4% higher than last year and exports another 2.0% increase for 2016, but Crupp said this will be a little high if milk production continues to increase at a rate of less than 1.0%.

Even with milk production at these levels and little improvement anticipated in exports prior to the second half of 2016, Crupp said the Class III price can be expected to decline to the high $15a for the remainder of the year. From there, prices may be in the low $15a during the first quarter of next year before slowly increasing to the $16s by the third quarter, he noted.

Market recap

Despite finishing higher last Monday at $137/cwt., live cattle futures fell throughout the week, even hitting the daily limit lower on Wednesday. The USDA September “Cold Storage” report revealed an increase in supplies, which serves as a catalyst for the correction. October live cattle futures sharply declined to $130.70/cwt. by Thursday.

September feeder cattle futures started the week strong but were unable to sustain the gains as the week progressed. Nearby contracts closed lower last Monday at $194.70/cwt. and fell slightly to $194.25/cwt. by Thursday’s close.

Large eggs delivered to the Southeast dropped to $2.03-2.07/doz., compared to $2.25-2.29/doz. the previous week. Eggs delivered to the Southeast plunged to $2.10-2.13/doz. from $2.32-2.36/doz. the week before.

Eggs delivered to the Midwest were also lower at $1.99-2.02/doz. Large eggs delivered to California were down slightly to $2.87/doz.

Turkey markets were steady to firm last week, with offering prices trending very light to light on light to fair demand. Prices for hens and toms last Thursday were slightly higher, at $1.25-1.35/lb., respectively.

Livestock & Poultry Cash Market Comparisons

<table>
<thead>
<tr>
<th>Livestock &amp; Meat ($)</th>
<th>Sept. 23</th>
<th>Sept. 16</th>
<th>5 months ago</th>
<th>Year Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef, Choice, 550-750 lb., cut., Omaha Delivery</td>
<td>217.98</td>
<td>223.41</td>
<td>201.01</td>
<td>210.66</td>
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<tr>
<td>Beef, Choice, 1,000-1,200 lb., cut., Southern Plains</td>
<td>196.00</td>
<td>194.00</td>
<td>171.00</td>
<td>193.00</td>
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<tr>
<td>Pork bellies, 500-700 lb., cut., Oklahoma City</td>
<td>234.05</td>
<td>214.50</td>
<td>264.00</td>
<td>250.00</td>
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<tr>
<td>Lean Hogs, Carnarvon, Iowa-Missouri Valley, 75-180 lb.</td>
<td>97.16</td>
<td>83.40</td>
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<tr>
<td>Pork Figs., 40 lb. National Direct Delivered</td>
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<td>WF Figs., 10 lb. National direct delivered (per head)</td>
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<td>Gruesse (Pigs, 10 lb.), cut., cut., cut., CBOT</td>
<td>214.50</td>
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<td>Pork Loin, 185 lb. USDA (per kg), cut., cut., cut., CBOT</td>
<td>80.37</td>
<td>76.00</td>
<td>66.10</td>
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<tr>
<td>Hog Corn Basis</td>
<td>19.32</td>
<td>18.57</td>
<td>14.45</td>
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<tr>
<td>Sow Corn Basis</td>
<td>37.67</td>
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<td>41.86</td>
<td>52.65</td>
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<tr>
<td>Poultry and eggs ($/lb)</td>
<td></td>
<td></td>
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<tr>
<td>Chicks, Grade A, Fresh, Eastern</td>
<td>76.50</td>
<td>75.00</td>
<td>95.50</td>
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<tr>
<td>Hen Turkeys, Grade A, Frozen, B., Chicago</td>
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<tr>
<td>Sow Turkeys, Grade A, Frozen, B., Chicago</td>
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<td>114.90a</td>
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<td>Eggs, Grade A, Large, B., Chicago</td>
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<td>203.50</td>
<td>164.50</td>
<td>190.50</td>
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<tr>
<td>Eggs, Grade A, Large, B., Chicago</td>
<td>202.50</td>
<td>203.50</td>
<td>164.50</td>
<td>190.50</td>
</tr>
</tbody>
</table>

(1) Replaces live hog; live hogs are 0.5 lbs of cattle. (2) Replaces live hog; live hogs are 0.5 lbs of cattle. (3) National PORK plant; replaces national daily cattle. (4) Livestock, poultry, and egg prices from USDA.
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