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Farm bill conference gets going

By JACQUI FATKA

MEMBERS of the long-awaited congressional farm bill conference conducted their first business meeting last Wednesday afternoon and offered opening statements on issues important to them.

Although leading up to the debate, attention was predominantly focused on the different policy approaches to nutrition funding and the commodity title, it was the mention of many hot-button livestock issues that continued to resurface throughout the two-and-a-half-hour meeting that could add fuel to an already stoked fire.

Senate Agriculture Committee chair Debbie Stabenow (D., Mich.) took the first swing when she said she had "great concern" regarding Rep. Steve King's (R., Iowa) provision that "overrides state governments' constitutional authorities."

King countered in a tweet after Stabenow's statement that his amendment was "mischaracterized" as an attempt to override states' constitutional authority.

The amendment was passed in House committee both in 2012 and 2013 and was tailored to protect the interstate commerce of food and agricultural products, King said. After California passed Proposition 2, which sets standards on how eggs can be produced, King said the bill was needed to prevent states such as California from regulating production practices in another state.

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FDA issues proposed animal feed rule

Feed makers must develop formal plan and put into place procedures to prevent foodborne illness.

By JACQUI FATKA

THE Food & Drug Administration officially rolled out its proposed Food Safety Modernization Act (FSMA) animal feed rule.

Although consistent with what trade associations anticipated, the rule does represent significant reforms to how firms implement food safety plans.

FDA's proposed rule includes provisions on both current good manufacturing practices (CGMPs) and preventive controls. The preventative controls provisions of the proposed rule, which are required by FSMA, would apply to domestic and imported animal food, including pet food, animal feed and raw materials and ingredients.

FDA estimates that the proposed rule has a one-time compliance cost to the industry of roughly \$100.74 million, and discounting the one-time cost over 10 years at a 7% discount rate and adding the annual costs would result in a total annualized compliance cost estimate of \$128.75 million.

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Egg industry a 'good egg'

By ANDY VANCE

BY essentially every key metric, the sustainability of egg production has improved dramatically over the past 50 years, according to a landmark study released Oct. 30 by the Egg Industry Center at Iowa State University.

Researchers conducted a life-cycle analysis of U.S. egg production from 1960 to 2010 and found that while farmers are producing far more eggs today, the industry as a whole has significantly decreased its environmental footprint.

Owing to a wide range of factors, including the reduction of natural resource use, improved hen feed, better disease control and advancements in hen housing systems, environmental efficiencies observed in 2010 are in stark contrast to the same measurements from 50 years prior.

The researchers found some key differences in today's egg industry compared to 1960.

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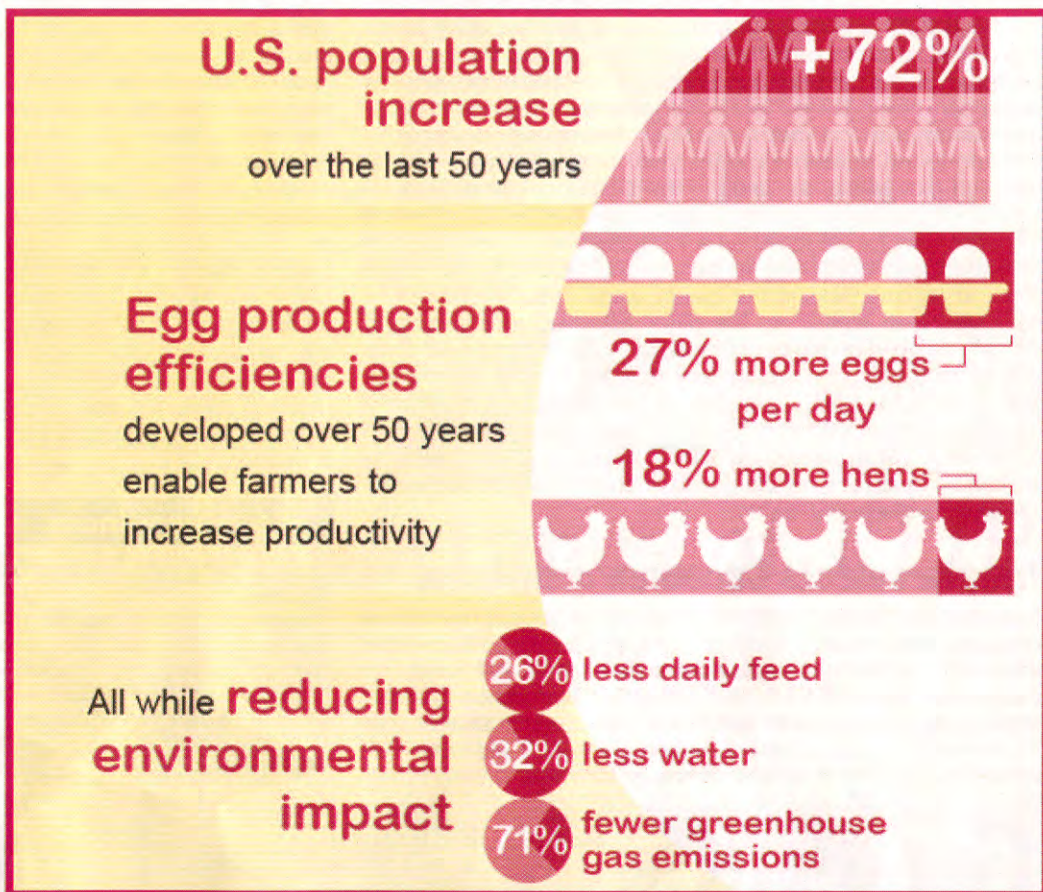


Photo: American Egg Board

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Rotary batch mixers ensure premix quality

ADM Alliance Nutrition says rotary batch mixers are "critical" to success of its premix and ingredient business.

ADM Alliance Nutrition Inc. is a leading manufacturer and distributor of vitamin and trace mineral premixes, ingredients and food additives used in manufacturing pet food products. In addition, about 10% of the Quincy, Ill., company's output is mixes for bovine and swine feed.

"We run about 1,100 premixes from 400 different powdered ingredients, largely for pet food producers," ADM Alliance Nutrition location manager Kyle Taylor noted.

The ingredient list is vast: zinc sulfate, zinc oxide, manganese, L-phenonine, riboflavin, lysine, assorted vitamins and minerals and a host of other nutritional compounds, to name a few.

"The mixers we use to produce our blends are critical to the success of our business," Taylor added.

Three of the company's mixers are Munson Rotary Batch machines that are more than 30 years old and run 20 hours per day.

Versatility

"The rotary batch mixers have lasted a long time, process high volumes and are very reliable," Taylor said. "Their motors are a lot smaller than the ones in our paddle mixers, so they are very energy efficient. They also clean up quicker because they discharge completely with little or no product heel. This is important because of the many fast changeovers for different customers we need to make each day."

Once a unit discharges, workers stop the machine, lock the drum and physically get inside to sweep out residues.

"It's pretty much a dry process. Sometimes, we use limestone, but no cleansers," he added.

Taylor prepares each batch to keep the particle size and bulk density of his raw materials as uniform as possible to get the best mix for each product run, but sometimes, this is not possible. Notwithstanding, even if particle sizes are significantly different and densities are as disparate as 20 and 85 lb./cu. ft., the rotary batch mixers produce uniform blends.

"The units are versatile. In the past, we used them to do batches of peas and carrots with virtually no separation, and when we switched them over to pet food powders, we got the same even results without having to make any engineering changes," Taylor said.

The 700 THS-110 model is the small-

est of the Quincy plant's three rotary batch mixers, with its 110 cu. ft. capacity. The other two are rated at 180 cu. ft. The 700 THS-110 and 700 TS-180 machines can mix 6,000 lb. per batch, while the 700 THC-180 can mix 12,000 lb. because of its more powerful motor and gearbox.

Unlike the company's agitated mixers, the rotary batch mixers do not heat the material, which prevents delicate and expensive additives, such as vitamins with time-release coatings, from breaking down.

Individual product campaigns or runs on the rotary batch mixers average between one and three tons but can get as heavy as 30 tons for bulk loads, which are packed into pneumatic trucks or hopper bottoms, as they're also called, that customers provide.

Smaller batches are packed either in 1,000-2,200 lb. bulk bags or standard bags in the 20-60 lb. range. The company has three bagging lines and four bulk bag lines. At an average of six minutes per batch, ADM completes about 60 batches per day for an average weekly output of 937 tons.

Moving toward food grade

Powder flow at the ADM facility is largely gravity fed over four floors and assisted by "drags," the name for paddles hooked to U-shaped conveyor chains.

At the top level, workers feed the special ingredient by hand into the mixers. The mixers are located one floor below, along with 17 bulk bins for 12 different bulk ingredients that automatically batch into the three units. Surge bins, which are rectangular steel holding tanks sized to accommodate one entire load from the mixers, are located on the second floor. These, in turn,

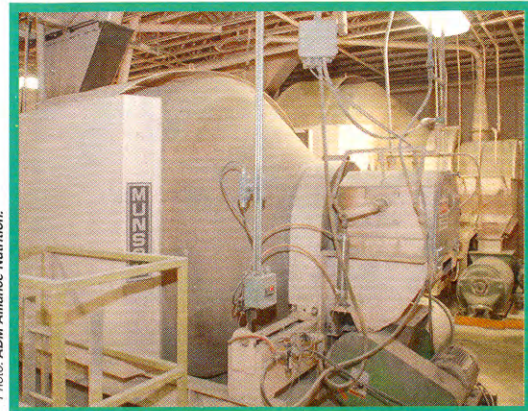


Photo: ADM Alliance Nutrition.

BATCH MIXES: ADM Alliance Nutrition relies on rotary batch mixers to make its many livestock and pet food ingredients — "about 1,100 premixes from 400 different powdered ingredients." The mixers discharge with little or no product residual, thus simplifying changeovers.

feed the bulk loaders, bulk bags and bag lines on the ground floor.

Metal detectors, which use either ceramic or rare earth magnets, are placed at strategic locations.

"If material coming in has gone through a grinding process — for instance, calcium carbonate, which starts as large rocks — we want to be sure we can catch a loose bolt, broken blade or other item from equipment failure, which is rare, but nothing we want to take chances with," Taylor explained.

Mixer studies are commonplace at the company. Their purpose is to evaluate the homogeneity of batches to ensure that each customer gets the same quality of product time after time.

Small samples of the batch are taken from various areas of the mixer (around 15, typically), and the number of particles of each ingredient are counted. The number of counted particles in each sample is compared to the average of the batch recipe.

A lower coefficient of variation number is preferred, indicating that the samples are close to the desired theoretical perfectly homogenous blend, and variation is small throughout the batch.

"Assays are an important part of the quality control program we've developed together with our customers over the years," Taylor explained.

While the Quincy plant is considered "feed grade," high-tech quality and other controls are moving it toward food grade. "Companies involved in companion animal feed are going toward that way of doing things," he noted.

The rotary batch machines at ADM have been mixing heavy volumes for decades and will likely continue for decades to come.

"Sooner or later, like everything else, they will be up for replacement," Taylor acknowledged, "but considering how robust they are, an overhaul, if and when needed, could make them last another 20 years." ■

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