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The magazine for the integrated poultry industry

Industry consolidation

Multinational footprint

The 21st century broiler producer

Multiple competitors
International trade

Market volatility

Diversification ventures

PLUS

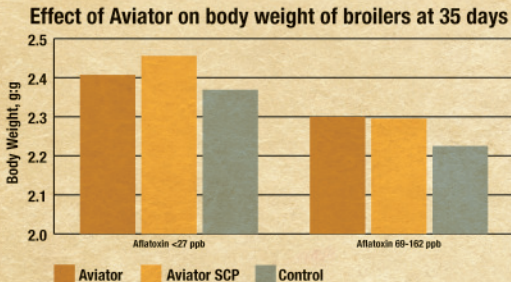
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WATT Poultry

VOLUME 15, NUMBER 2

USA

The magazine for the integrated poultry industry

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Cover composite by Elizabeth Crosby.
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»» Next on the Plate:

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How to have a good relationship with FSIS in 2014



»» Excellent advice on how poultry processing plants should approach their relationships with the Food Safety and Inspection Service (FSIS) was presented by Vanessa Smith, quality assurance manager, Pilgrim's Inc., Douglas, Ga., at the 2013 Poultry Processor Workshop. Her presentation, "Answering NRs: All while maintaining a cordial relationship with USDA," listed things plant personnel should do - and not do - when

Noncompliance Records (NRs) are issued by FSIS.

Tip 1: Obtain the facts and stick to them

- First, determine if there was, in fact, noncompliance.
- If there was noncompliance, begin compiling the facts.
- First and foremost -- What was the noncompliance?
- What time did the noncompliance occur?
- Who observed the noncompliance (hourly workers, supervisors, managers)?
- What was done to correct the noncompliance?
- What was put in place to prevent the noncompliance?

Tip 2: Be familiar with the regulations

Tip 3: Strive to be neat and clear, not messy and jumbled in written responses to Noncompliance Records

Things to avoid saying:

- We were already doing X when USDA took control ...
- If the inspector had done ...
- Plant management told us ...
- Another inspector said ...
- This is how we've always done ...

Will following Williams' advice ensure good working relationships with FSIS? There are no guarantees. After all, any relationship is a two-way street. However, plants that violate the advice can be pretty sure the results won't be as desired. ■

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FACT: This innate immune response diverts energy away from growth and performance.^{2,3}

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1. Spurlock, M., 1997. "Regulation of metabolism and growth during immune challenge: an overview of cytokine function." J Anim Sci. 75:1773-1783.
2. Klasing, K., Laurin, D., Peng, R. and Fry, M. 1987. "Immunologically Mediated Growth Depression in Chicks: Influence of Feed Intake, Corticosterone and Interleukin-1." J. Nutrition. 117: 1629-1637.
3. Korver, D. 2006. "Overview of the Immune Dynamics of the Digestive System." J. Appl. Poultry Res. 15: 123-135.
4. Lee, J., Bailey, C. and Cartwright, A. 2003. "B-Mannanase Ameliorates Viscosity-Associated Depression of Growth in Broiler Chickens Fed Guar Germ and Hull Fractions." Poultry Sci. 82: 1925-1931.

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»» Next on the Plate: Looking forward farm to fork

US chicken breast prices now globally competitive

The falling price of corn will enable the price of skinless boneless breasts to reach a (profitable) \$1 per pound this year, completing an 80 percent drop in price in 30 years.

BY PAUL AHO



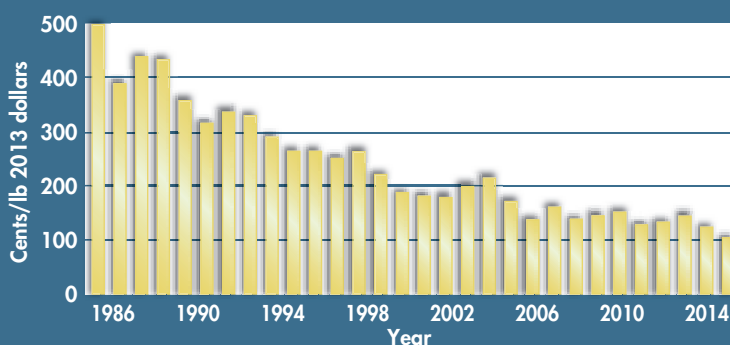
»» The first processing plant dedicated to breast deboning all of the chickens going through the plant opened in the U.S. in 1985. It was a bold and novel idea and the precursor to what is now called a “big bird plant.”

In those days, the wholesale price of skinless boneless breast (SBB) was \$5 per pound in today’s dollars. It was a luxury product sold in small quantities to the wealthy who could afford to buy an exceptionally high-value-added product.

Over the next 30 years, the price of SBB dropped steadily and is likely to average just \$1 per pound in 2015. Now bone-in products are becoming exotic while boneless breast is standard and consumed in high quantities by people in all income categories. This remarkable improvement in productivity rivals any in the American economy in recent years, particularly given the fact that the industry faced gale-force headwinds from grain prices.

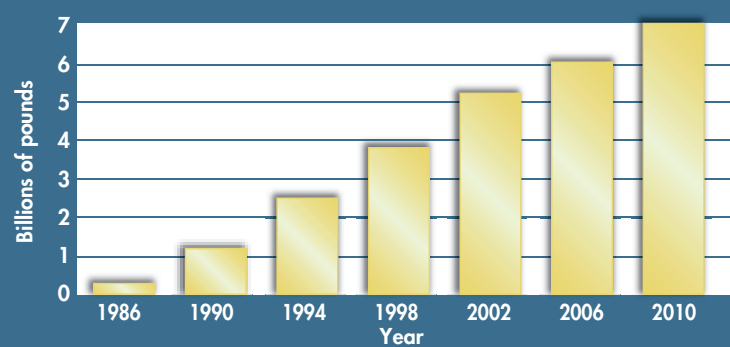
On the road from \$5 to \$1 per pound, three remarkable changes took place in the U.S. First, the number of chickens deboned for breast meat increased from 500 million in 1984 to 4 billion. Second, the average

Wholesale price deboned breast



The wholesale price of deboned chicken breasts has dropped steadily and is likely to average just \$1 per pound in 2015.

Production of skinless boneless breasts



Production of skinless boneless breasts increased from 300 million pounds in 1985 to a projected 7 billion pounds in 2015.

live weight of chicken deboned for breast meat increased from 5 pounds to 8 pounds. Finally, the yield of boneless breast increased from just

15 percent of the 1985 live chicken to 24 percent of the 2015 chicken. The combination of greater numbers, increased weight and higher yield

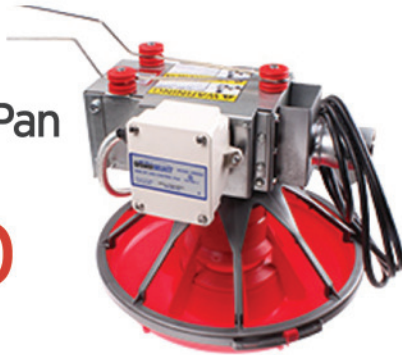


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»»Next on the Plate: Looking forward farm to fork

combined to boost production from 300 million pounds in 1985 to approximately 7 billion pounds in 2015, a 2,300 percent increase in 30 years.

One-dollar-a-pound skinless boneless breasts

The falling cost and price of SBB was assisted recently by the increased

value of leg quarters, wings and paws. The price of leg quarters, for example, doubled in the past 10 years from \$450 to \$900 per metric ton. With the back half of the bird covering more of the cost, breast meat can be sold for a lower price. In 2014, the falling price of corn, and hopefully soybean meal as well, will enable the price of SBB to reach a (profitable) \$1 per pound, completing an 80 percent drop in price in 30 years.

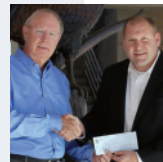
The 21st century world of low-cost U.S. SBB will be very different from the 20th century. In that century, the U.S. was highly uncompetitive in the world market for SBB. Now, with product nearing \$2,200 per metric ton, the U.S. is coming into alignment with the international price of SBB. It is becoming such a value that the international price actually may provide a floor for U.S. domestic prices, a situation that could hardly be imagined in 1985. ■

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PEOPLE & COMPANIES

»»The USPOULTRY Foundation recently awarded an \$18,377 student recruiting grant to the Poultry Science Department at the University of Arkansas.

USPOULTRY board member Bill Bradley, left, presents Dr. Mike Kidd of the University of Arkansas with a check.



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»» Next on the Plate: Looking forward farm to fork

EPA seeks to redefine waters of the US

The Environmental Protection Agency seeks authority over intermittent streams, ponds and isolated wetlands, some of which have no recognizable ties to larger bodies of water.

BY PAUL J. BREDWELL



»» The Environmental Protection Agency (EPA) and the Corps of Engineers (COE) are poised to assert broad authority over a larger number of discrete water bodies and water features

after the September release of a report that reviews scientific literature on how smaller streams and wetlands are connected to large rivers, lakes, estuaries and oceans.

The EPA's and COE's broadened authority would likely include intermittent streams, ponds and isolated wetlands, some of which have questionable or no recognizable tie to larger bodies of water. Additionally, the two agencies sent a draft rule to the White House Office of Management and Budget meant to redefine the scope of waters protected under the Clean Water Act (CWA) citing the report as justification for doing so. The report, titled "Connectivity of Streams and Wetlands to Downstream Waters," states its purpose is to summarize the current understanding about the factors and mechanisms by which connected waters affect the function or condition of downstream waters.

Jurisdiction sought over disconnected wetlands, waterways

Generation of the report indicates EPA took a signal from the Supreme Court following *Rapanos v. EPA* in 2006. In this case, the court addressed the jurisdictional limits of EPA and the COE under the CWA. While the justices agreed "relatively permanent" bodies of water fell under the agencies' jurisdictional authority, there was little agreement when it came to interpreting the CWA's intention to include jurisdictional authority over disconnected wetlands and waterways. Because of this disagreement, the court failed to issue a majority decision and, in fact, issued five separate opinions. The opinion with the most support, termed the "plurality opinion," included within EPA's and COE's jurisdictional authority only wetlands with a "continuous surface connection" to other jurisdictional waters.

Although Justice Anthony Kennedy generally agreed with those issuing the plurality opinion, he declared the agencies also held jurisdictional authority over upstream wetlands that, either alone or in combination with similarly situated lands,

affect the chemical, physical and biological integrity of navigable waters. This, he explained, creates a "significant nexus" between the wetland in question and the downstream water.

Report cites physical, chemical, biological connections

The report, released in conjunction with the draft rule, goes to great lengths to establish a significant nexus between virtually every upstream water body and jurisdictional water. However, the links often are established by citing loosely reasoned physical, chemical and biological connections that lack robust science to support them. The report's use of faulty determinations is a clear attempt by EPA to support the promulgation of a more specific regulation that Justice Kennedy said was needed if EPA and COE wanted to assert broad jurisdictional authority over wetlands adjacent to non-navigable tributaries. Additional permitting burdens and potential liability associated with this jurisdictional expansion makes it essential to comment on the proposed rule when it is released. ■

*Paul J. Bredwell III, P.E., Vice President
Environmental Programs, U.S. Poultry &
Egg Association*

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»» Next on the Plate: Looking forward farm to fork

K&N's Foods progressing with plans to open poultry plant in New York

»» K&N's Foods, a Pakistan-based poultry company, is progressing with its efforts to convert a former Birds Eye vegetable processing plant into a poultry plant in Fulton, N.Y. K&N's Foods has yet to process any poultry products in the facility it purchased in 2013, but it has already employed 43 people in the Fulton community.

The plant in Fulton is K&N's Foods' first facility in the U.S. When K&N's Foods receives approval from the USDA to begin operations, possibly by the spring of 2014, it will begin making Halal chicken products like nuggets, sausages and cold cuts. Adil Sattar, CEO of K&N's Foods USA, told WRVO Public Media the company plans to sell

its food to specialty stores, supermarkets and foodservice companies in the U.S., Canada and Europe. Sattar said there is currently a dearth of options currently available in those locations.

K&N's Foods has invested more than \$5 million into the building it purchased from Pinnacle Foods. When the poultry plant is open and running at full-capacity, the company expects to employ 183 workers.

The Fulton facility is one of two plants shuttered by Pinnacle Foods with a possible future in poultry processing. Allen Harim Foods is in talks with Pinnacle, hoping to convert the former Vlassic pickle plant in Millsboro, Del. into a poultry plant.



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USDA makes permanent meat serving flexibilities in school lunch program

» The United States Department of Agriculture (USDA) has made permanent the current flexibility that allows schools to serve larger portions of lean proteins during school lunches and meals. The change to the USDA school lunch program was announced by Kevin Concannon, USDA undersecretary for food, nutrition and consumer services.

“Earlier this school year, USDA made a commitment to school nutrition professionals that we would make the meat and grain flexibility permanent and provide needed stability for long-term planning. We have delivered on that promise,” said Concannon.

USDA has worked closely with schools and parents during the transition to healthier breakfasts, lunches and

snacks. Based on public feedback, USDA has made a number of updates to school meal standards, including additional flexibility in meeting the daily and weekly ranges for grain and meat or meat alternatives, which has been available to schools on a temporary basis since 2012.

DATELINES

Details @ www.WATTAgNet.com/Events.aspx

- » Midwest Poultry Federation Convention, March 19-20, St. Paul, Minn., www.midwestpoultry.com www.uspoultry.org
- » USPOULTRY Human Resources Seminar, April 14-16, Hilton Head Island, S.C., www.uspoultry.org



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What's ahead for the 21st century broiler producer

Bill Roenigk talks with WATT PoultryUSA about the future of the U.S. broiler business, including the issues of industry consolidation, business models and international trade.

BY GARY THORNTON



» **WATT PoultryUSA:** *Bill, congratulations on completing over 39 years of service to the U.S. broiler industry. As you retire from your full-time responsibilities as senior vice president at the National Chicken Council and take on a part-time consulting role, what is the biggest change you've witnessed in your four decades in the industry?*

Bill Roenigk: When I joined the National Broiler Council in 1974, there were over 200 chicken companies in business. Today there are around 40. The industry produced 7 billion pounds of ready-to-cook chicken in 1974, and USDA projects that over 38 billion pounds will be produced this year. While there are one-fifth as many companies in business today, they are producing five times the amount of chicken.

USA *Do you foresee continued industry consolidation?*

BR Consolidation is not over in the U.S. chicken industry, but I don't see strong evidence that the U.S. chicken industry will be made up of just large companies, or even a mixture of large and midsize companies. Many of the smaller chicken companies can do a better job of meeting the needs of the markets that they're servicing than the larger companies.

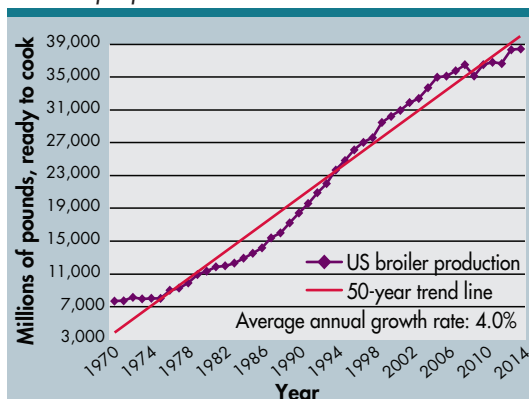
Beginning as early as the 1960s, industry analysts

said there would be 10 chicken companies in 10 years. As the decades went by, that prediction was repeated, but I don't think we're going to see 10 companies in the next 10 years, and probably not the 10 years after that because of the dynamics at work in the industry.

USA *Today, the four largest companies produce about 55 percent of the chicken sold in the U.S. Beneath that top tier, 12 so-called midsize companies account for around 37 percent of the industry's production. Smaller companies make up the balance. Is that industry structure going to prevail over the next 10 years?*

US broiler production

1970 - projected 2014



» The industry produced 7 billion pounds of ready-to-cook chicken in 1974, and USDA projects that more than 38 billion pounds will be produced this year.



» During his 39-year career with the National Chicken Council, William 'Bill' Roenigk moderated scores of panel discussions, including one with meat and poultry executives in 2013.

BR It's true the market shares of the four largest chicken companies have inched up in the last few years. However, if you look further back to the 1950s and early 1960s, the companies that tended to dominate in the industry are no longer in business. Those included companies like Ralston Purina and Pillsbury. The thinking in that day was that the industry structure was the way it was going to be. But those large companies discovered the volatility and the challenges of the chicken business were not what their management and stockholders preferred. So those companies exited the chicken business for other opportunities. I'm not suggesting that the top chicken companies of today are going to exit the business - I don't think that is going to happen - but for their growth to be profitable, it will have to be in step with the overall growth of the industry.

USA *Which companies will grow in the future?*

BR While I foresee the large companies as growing in concert with the overall industry,

small companies will grow at the rates of the particular markets they serve. The so-called midsize firms are the ones that have decisions to make in terms of their growth. Can they continue to compete and survive by standing pat at their relative size? Do they need to grow to a larger size? Some might decide to form alliances with other midsize companies.

USA *The "rule of three" in economics suggests that there will be three major competitors in any mature market and perhaps other companies that survive by operating in niche markets. Do you foresee three chicken companies emerging as more dominant than today?*

BR Three companies tend to dominate in industries in which significant barriers to entry exist. Those barriers may be in attracting capital for growth or finding risk-taking owners to manage the businesses. While the entry barriers are not insignificant in the chicken business, there are quite a few lenders willing to help companies build and expand their businesses.

While there may be three or four dominant companies in the chicken business in the future, the other companies are not going to disappear. Those other companies have the opportunity to compete and challenge the bigger companies for market share. I think the smaller companies, and to some extent the midsize companies, are in an excellent position to keep the bigger companies busy trying to keep up with all the competition.

USA *The emergence of the multi-protein business model has been pretty remarkable. What impact will this have on the future of the U.S. chicken industry?*

BR The multi-protein model - all the meat proteins under one corporate umbrella - might become somewhat more prevalent, if for no other rea-

■ POULTRY BUSINESS

son that it allows firms to spread their risks across broader business portfolios. But U.S. chicken companies that have stuck to their knitting, so to speak, and produce a good chicken, are going to be very difficult competition for other companies, whether they're multinational or multi-commodity. So I believe there will be a mix of approaches in the future with no clear-cut business model going forward.

Another consideration involves family ownership of companies. A number of chicken companies started by industry pioneers are family owned and operated by the second or third generations. The question becomes - does the family have the passion, the willingness to accept the market risk and other risks to keep the company going? Or does a larger company, which has interests in beef or pork or turkey and now wants to get in the chicken business, make an offer to those family owners to which they can't - from a financial standpoint - say no.

Potential acquirers - many of whom might have other animal agriculture interests - are not just other U.S. chicken companies but include international companies. While ownership of U.S. operations may, or may not, be their most profitable investment in the short term, some of them may be seeking a more diverse business portfolio, which could include the geographic diversity of having operations in the United States, Brazil, Europe, Asia, or wherever. The diversification - as your question implied - could also include beef or pork or turkey or chicken.

USA *Meat and poultry consumption is growing the most internationally - and especially in developing nations with growing middle classes - not in the U.S. How do you foresee the international market opportunity playing out?*

BR There's tremendous pent-up demand around the world for animal agriculture products, including poultry. Consider, for example, that between now and 2022, China's middle class will grow by over 300 million consumers. There are about 314 million people in the United States now, so the Chinese middle class is going to grow by about the size of the U.S. population over the next 10 years.

The question is will the poultry to fill that demand be pro-

What 39 years in the chicken industry teaches you

USA: Any lessons learned, Bill, from 39 years of industry experience observing the chicken industry?

BR: One thing I've learned is that when everyone thinks absolutely, positively, something is going to happen a certain way in the future, it's time to take a timeout and ask some questions.

The latest example is last year's corn crop of 10.7 billion bushels, and corn prices were \$8.00 a bushel at harvest. Almost everyone, including myself, believed 2013 would be a terrible year of financial losses for the chicken industry. Almost everyone said those high feed costs could not be passed on in higher chicken prices. We now know that those costs were passed on to the consumer, and 2013 was one of the U.S. chicken industry's most profitable years.

So, when we think we have the future absolutely, positively figured out, ask a few questions:

- How might things be different in six months or 12 months?
- What are the chances that it won't happen?
- What are the things that could change our thinking or even make the situation turn out 180 degrees opposite of what we're thinking?

These are questions I try to remember to ask myself. More often than not, I have to relearn the lesson because it's easy to fall into the trap of thinking things are obvious. But what's obvious and expected does not always happen. This is a valuable lesson.

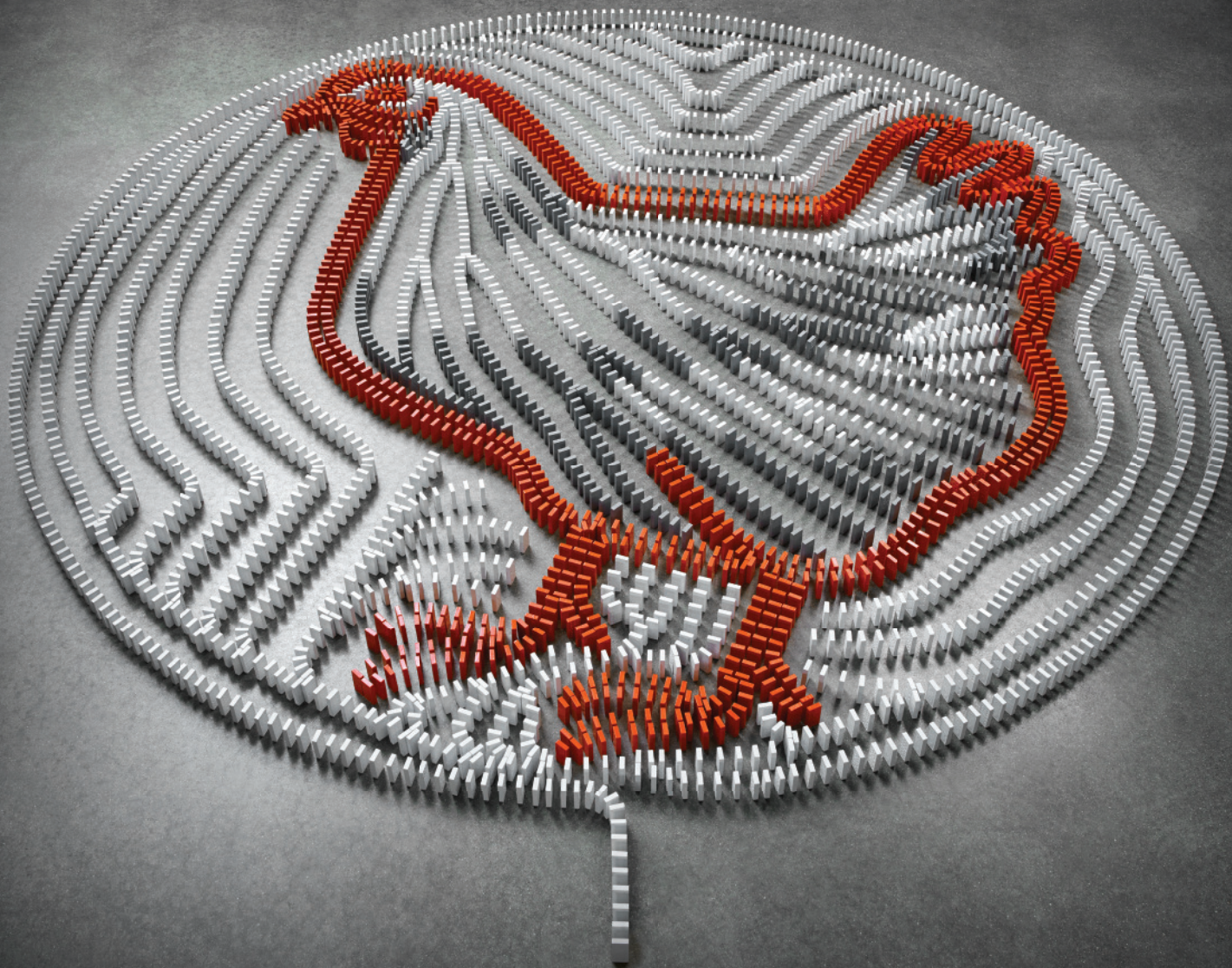
duced in countries, like China, where it is to be consumed? Or will it be imported? Or will both things happen? Specifically, is it going to be Chinese companies that serve that growing demand for chicken? Or is it going to be joint ventures or producers in other countries that produce the chicken to fill that demand? The evidence now seems to indicate the demand will be filled by a combination of those things.

"Free trade" will hopefully be driven by agreements now under discussion, but the chicken industry's foodservice and retail grocery customers also will play an impor-

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POULTRY BUSINESS

tant role in how this opportunity is tapped. Whether it's companies like McDonald's or KFC or Walmart, they like to be able to source their

food products from where they can have the best value and consistent quality, so they can deliver those products to consumers, whether in

China or Europe or North America, or South America.

The poultry industry's foodservice and retail grocery customers with an international footprint will be important drivers of the trade in poultry. These companies will be glad to import it if that's the best thing, or if they think a domestic company in China can do it better, they will encourage that to happen. These international food companies will be supportive of encouraging companies' suppliers to locate where they think they can do the best job. However, better trading rules are needed for that type of more dynamic marketing to happen.

USA *Will U.S. chicken exports continue to increase in the future?*

BR Even up until the early 1990s, U.S. exports of chicken were pretty much limited to whole birds. Now it also includes chicken leg quarters and parts. But the greatest export opportunity in the future will be in further-processed chicken or prepared food products. Ten years from now, we will look back and see that's where international trade really took off. So there will be some increase in the tonnage of U.S. poultry exports, but the greater growth will occur in the value of those exports.

Foodservice and retail grocery chains will figure out how to market these products in markets that are not the wealthiest. Consumers there will figure out that these portions, while

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they may be a little bit more expensive per pound, are a good value and perhaps better than bulk leg quarters.

USA *Is there one key challenge that will define the future of the chicken industry? Obviously, chicken companies have to be efficient. They need a good marketing plan. They need to have good succession planning, especially if they are a midsize or smaller company. What else?*

BR I would put near the top of that list the ability to understand and analyze grain and oilseed markets going forward. It is going to take greater ability, deeper insight to deal with the volatility in the costs and availability of grains and oilseeds which, after all, represent the biggest costs of producing chicken or poultry.

The industry has recently been enjoying lower corn prices that resulted from the good crop and greater supplies, but there's going to continue to be greater risk in the future in terms of potential shortfalls here or there in grains and oilseeds. With the increases in food consumption worldwide, there's going to be plenty of demand for these crops. Staying

After a 39-year career, William P. 'Bill' Roenigk, senior vice president of the National Chicken Council, retired from full-time responsibilities in 2013 to become a part-time consultant. He was interviewed by WATT PoultryUSA Content Director Gary Thornton.

aware of these challenges on the supply side and demand side is something chicken companies are going to have to do a much better job of.

Volatility is going to be as difficult a challenge in the future as it is now. A management style that can take on these risks will be required. ■

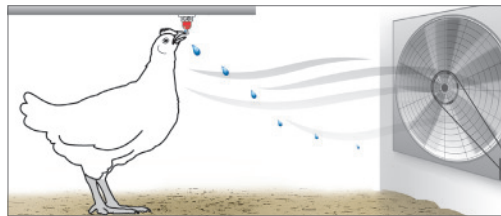
POULTRY WATERING U

Watering Wisdom **3**

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Key Directive: Drinker line column pressure must be adjusted throughout the year to match changing environmental conditions. Learn about best management practices and much more at Ziggity's Poultry Watering U website.

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■ POULTRY MARKETS

Tapping poultry's vast market opportunity in China



Explosive growth in China's emerging middle class presents US poultry producers with an unprecedented market opportunity. Tapping it will require adjustments in trade policy and marketing.

BY GARY THORNTON

»“You are sitting on top of the No. 1 business in the world with fantastic and phenomenal growth,” Matt Tripodi, Euromonitor International, told listeners at the USA Poultry & Egg Export Council winter meeting in Washington D.C.

Tripodi was speaking of the market opportunity for U.S. poultry and egg producers in China. In a word, the opportunity for poultry is vast. Literally hundreds of millions of consumers will be attaining incomes in the next 10 years that allow them to purchase poultry.

Per capita poultry consumption was 11.2 kilograms in 2012 for mainland China, but it is increasing.

“There is a tipping point in developing economies,

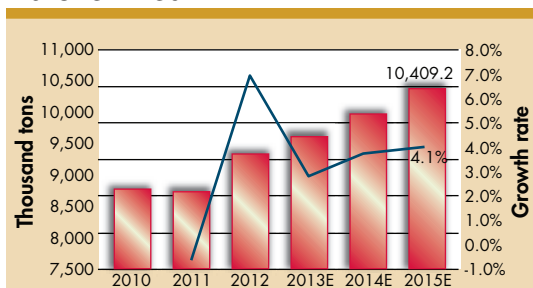
about \$5,000 disposable income, at which the consumption engine really cranks up. China is right about there. So we haven't seen the top of this market opportunity yet,” he said.

China's vast market for poultry

How big is the market opportunity for poultry in China? The explosive growth of China's emerging middle class represents enormous economic demand as huge numbers of consumers become able to afford poultry. By 2022, more than 75 percent of China's urban consumers will earn CNY60,000 to CNY229,000 (\$9,000 to \$34,000) a year, according to McKinsey & Company estimates.

“As recently as 2000, only 4 percent of urban households in China were middle class; by 2012, that share had soared to over two-thirds. And by 2022, China's middle class should number 630 million -- that is, three-quarters of urban Chinese households and 45 percent of the entire population. The rise of the middle class is essentially an urban phenomenon. Average per capita urban income in China is roughly triple that in the countryside -- and there are set to be 170 million new urbanites between now and 2022,” according to Dominic Barton, global managing director, McKinsey & Company.

China's consumption volume, broiler meat



Source: Euromonitor International presentation at USA Poultry & Egg Export Council, December 2013

» China's consumption of broiler meat is expected to rise from 8,802.2 thousand tons in 2010 to 10,409.2 thousand tons in 2015.

China's poultry market today

The U.S. poultry and egg market size in 2012 was \$61.6 billion. Mainland China and Hong Kong SAR

market size in 2012 was \$2 billion. This means the opportunity is still untapped.

What's more, China's domestic poultry industry won't be able to service the population's needs. China's importance as a trading partner, therefore, is only going to grow.

"China isn't just 'a' partner -- it is 'the' partner in U.S. agricultural trade," Tripodi said.

"From 2011 to 2012 U.S. ag exports to China grew over \$7 billion, unprecedented single-year growth. From 2007 to 2012, China represented nearly 35 percent of total U.S. ag export growth. This is a whopping \$17.7 billion out of \$51.4 billion," he noted.

U.S. poultry and poultry products trade with China set another record to top \$6.5 billion in 2013. China is expected to be the third-largest market for U.S. exports in 2013. Key growth sectors include broilers, live poultry, chicken paws and feet and fresh chicken eggs.

The business of doing poultry business in China

Euromonitor International's Tripodi provided USAPEEC members with analysis of the opportunity in China, as well as the business of doing poultry business there. His conclusion: the China opportunity is, indeed, vast, but U.S. poultry needs increased market relevance.

U.S. poultry producers need to increase market relevancy in China to seize a bigger share of the chicken, turkey and egg business unfolding there. Tripodi's recommendations to USAPEEC members included:

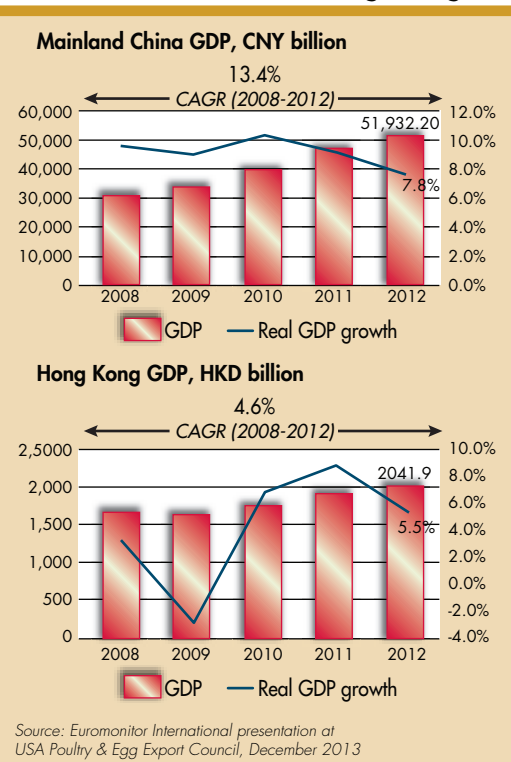
- Develop flavored chicken paws for a China market that is looking for new value-added products
- Market Halal poultry drums to China's large Muslim population
- Cultivate stronger political and one-on-one business relationships in China

There's urgency to the recommendations, because there is a global grab for shelf space and China is the leading growth market up for grabs.

Political and trade relations are challenging

U.S.-China trade friction in poultry has been a real

Steady economic growth in Mainland China and Hong Kong



» Steady economic growth in mainland China and Hong Kong has kept poultry and egg consumption stable.

negative. In August and September of 2010 China imposed antidumping duties of between 50.3 percent and 105.4 percent on U.S. poultry. Countervailing duties of between 4 percent and 30.3 percent also were imposed. The WTO ruled against China's antidumping and countervailing duties in September of 2013, but political and trade relations must now be repaired.

"The losses to the U.S. broiler industry due to this trade dispute were somewhere near a billion dollars. So having this dispute decided is significant," Tripodi said.

Tripodi said the U.S.-China dispute illustrated two things. First, duties have a big impact on trade volume. Secondly, political relationships matter a lot in China. "Before the dispute, Brazil was sending about \$7 million of poultry products to China. Following the dispute, Brazil's poultry exports to China jumped to \$548 million. With

■ POULTRY MARKETS

the antidumping duties and the countervailing duties, Brazil became the leader in both mainland China and Hong Kong,” he said.

He confirmed for listeners what they already know. Political and trade relationships are hugely significant for the Chinese. “Our research teams in China confirmed that trade is very heavily politically driven, and deals happen due to relationships at a political level,” he said.

Legislative and regulatory changes in China

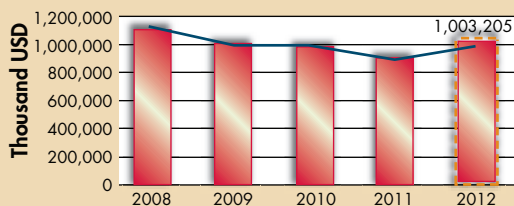
PEST (political, economic, social, technological) analysis performed by Euromonitor International identified legislative and regulatory changes in China to which U.S. producers must adjust:

- Licensing system to regulate broiler import companies
- Requirement of inspection and quarantine approvals and import licenses
- Stricter labeling requirements (with both Chinese and English logos)
- Requirement on original packaging with hygiene certificate and customs seal
- Other quarantine and inspection regulations on imports
- In Hong Kong, legislation and regulation included:
 - Requirement of import license issued by the Hong Kong Food and Environmental Hygiene Department
 - Extend the coverage of HK food safety regulations to apply to imported poultry and egg products
 - New laws to better trace food sources in case of issues

Markets evolving in China and Hong Kong

Steady economic growth in mainland China and Hong

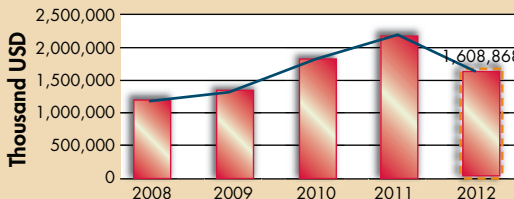
**China import trends:
Value of poultry and eggs**



Source: Euromonitor International presentation at USA Poultry & Egg Export Council, December 2013

» After falling from 2008 to 2011, China’s poultry imports are now expected to grow again.

**Hong Kong import trends:
Value of poultry and eggs**



Source: Euromonitor International presentation at USA Poultry & Egg Export Council, December 2013

» In 2010 and 2011, Hong Kong exported huge quantities of poultry to mainland China as a result of high poultry prices during the US-China trade dispute.

Kong has kept poultry and egg consumption stable, Tripodi said. There has been rapid and steady GDP growth in mainland China. Mainland China’s CAGR in GDP in the 2008 to 2012 period was 13.4 percent. Urbanization in China has continued to increase, surpassing 50 percent in 2010.

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POULTRY MARKETS

Per capita poultry consumption was 11.2 kg for 2012 in mainland China, and still is increasing. There's still room for growth in poultry imports there. Annual poultry imports of mainland China were between 400,000 and 800,000 tons in the last five years.

Hong Kong's growth has been stable, with GDP growing by 4.6 percent in the 2008 to 2012 period. The economy there was affected by the global financial crisis more severely.

Hong Kong's importance as a poultry trading hub

Hong Kong is a trading hub in Asia for poultry and eggs, and that market depends on imports. Hong Kong is situated to serve the Asia Pacific, where regional disposable income is expected to grow faster than anywhere else in the world through 2020. Per capita in disposable income in the region is expected to grow by \$1,339 by 2020.

"Estimates show that some 20 percent to 30 percent of this additional income will be spent on food. Asia Pacific represents more than

a trillion dollar opportunity for the food industry," Tripodi said.

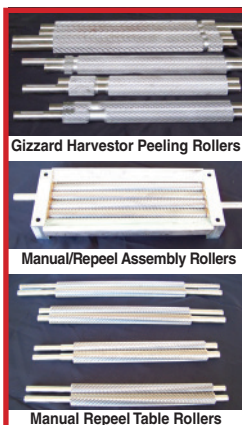
China's unique consumption habits are an opportunity

In the mainland China and Hong Kong markets, consumption habits are somewhat unique, with insufficient domestic supply and demand for imports. There is high demand for chicken paws, feet, wings, etc. There is insufficient domestic supply of these items.

Mainland China's consumers are affected by negative reports about food safety due to a lack of relevant knowledge, Tripodi said. Consumers there are concerned about some locally produced poultry and egg products.

In Hong Kong, frozen chicken is already becoming a more mainstream product with consumers because of the convenience and food safety factors. It is also beginning to be seen as more westernized. At some point, frozen chicken could become more mainstream in mainland China for the same reasons.

"These things are evolving in the market place," Tripodi said. "As the



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■ POULTRY MARKETS

barriers to products like frozen chicken begin to fall there will be an uptick in consumption of imported poultry.”

US and Brazil are China's top poultry trade partners

China's top import partners are the U.S. and Brazil. Each of these competitors has strengths and weaknesses, according to Tripodi.

The U.S. has the following advantages:

- An early entry in the China and Hong Kong markets with a good reputation for consistent quality
- Abundant supply due to high level of industrialization of poultry and egg industry in the U.S.
- U.S. chicken paws have unique texture and taste
- The U.S. has more mature and convenient logistics, compared to Brazil

Brazil has advantages, too, including the following:

- Good classification packaging and low water content in frozen products

- Prices are very competitive due to low labor cost
- Brazilian products, especially wings, have established reputation of similar quality to the U.S. products among importers in recent years

- Brazil has good government and trade relations with China

How can U.S. poultry producers build their market share in China? Put the focus on market relevancy, Tripodi said. U.S. producers need to increase their relevancy up and down the supply chain to consumers, to importers, and to government officials. It is important to do so now because of the grab for shelf space going on now in the marketplace.

“China is an evolving marketplace that is becoming more sophisticated. Consumers there are concerned more and more about food safety. As a result, new legislation and regulation is coming on line. This will make China a better marketplace for poultry. The net effect will be a more developed market which recognizes quality, and one in which U.S. poultry will compete on a more even footing,” he said. ■



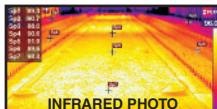
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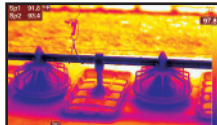


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Preventing broiler foot-pad dermatitis with nutrition

The right diet can help reduce broiler foot-pad lesions by 50 percent

BY IOANNIS MAVROMICHALIS

Gediminas Pockeviciu/Fotolia.com

» Broiler foot-pad contact dermatitis (also known as pododermatitis) remains a production and welfare problem for the worldwide broiler industry as it reduces profitability and causes suffering to birds. In fact, regulations exist in several European countries that try to control this problem by reducing stocking density where broiler foot-pad dermatitis remains a chronic issue. Alternative solutions are currently explored to allow broiler production at higher (normal) stocking densities, and of course, nutrition can be part of the solution.

Wet poultry litter

The problem of foot-pad dermatitis has been associated primarily with wet litter (as complicated by moisture, nitrogen content and pH) that is caused by excessive water intake and excretion. To this end, controlling protein intake and balancing dietary electrolytes are the usual methods employed to control water consumption to levels required for broiler maintenance and growth. Avoiding excessive water intake to rid the

organism from surplus protein and electrolytes is only a first-step approach to a complicated problem.

Enhancing the resistance of the foot pad to reduce its damage from contact with wet litter is another approach. Adding extra zinc and biotin often is advocated as both nutrients are involved in the development and maintenance of the vulnerable tissues in the foot pad. Although adding high levels of zinc is not allowed in the European Union, it is always advocated to use the highest amount possible (150 mg/kg), in addition to a super-high dosage of biotin (1,000-3,000 micrograms/kg feed, as opposed to normal specifications of 100-300 micrograms/kg). Other trace minerals, such as copper and manganese also can be beneficial.

Broiler diet

Feeding a coarsely ground diet tends to reduce litter moisture and consequently foot-pad dermatitis problems. However, results remain inconclusive. Interestingly, it has been suggested that wheat-based diets tend to increase the incidence of broiler foot-pad dermatitis as opposed to corn-based diets. This is perhaps best explained by the presence of viscous non-starch polysaccharides in wheat that result in increased excreta moisture.

Other, but related to the above, suggestions to combat this issue involve the use of enzymes, organic minerals, and organic acids; but again, it appears no single approach can resolve alone the incidence of foot-pad dermatitis. Instead, nutritionists have developed diets

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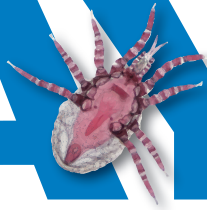
■ POULTRY NUTRITION

specifically to prevent broiler foot-pad dermatitis (along, of course, with other management intervention measures). Such a diet would include a combination of the above nutritional intervention measures, but at an increased cost, which should be always outweighed by the loss of profitability caused by foot-pad dermatitis. It has been reported that using such diet can reduce the incidence of foot-pad lesions in both feet of male broilers grown to 40 days of age by almost half—a very significant reduction!

“FEEDING A COARSELY GROUND DIET TENDS TO REDUCE LITTER MOISTURE AND CONSEQUENTLY FOOT-PAD DERMATITIS PROBLEMS.”

Problems associated with wet-litter conditions remain one of the important issues of the broiler industry. Nutrition can definitely play a role in preventing or at least alleviating these problems, as in the case with foot-pad dermatitis that is receiving renewed attention as broiler genetics continue to provide an ever-younger bird with a heavy body weight. ■

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¹ "Northern Fowl Mite." Cornell University College of Agriculture and Life Sciences Department of Entomology website. Accessed 1/17/13. <<http://entomology.cornell.edu/extension/vet/aid/chicken/nfmite.cfm>>.

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Watering Wisdom 4

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Fig. 1

It is also assumed that a drinker with a higher static flow rate will discharge proportionally more water when triggered dynamically. However, tests prove this assumption is false! (see video at poultrywatering.com/4).



Fig. 2

Drinkers should be designed to work in harmony with the way birds drink--intermittent pecking (Fig. 1).

Holding the drinker trigger pin up ("static flow") does **NOT** replicate the way birds really drink (Fig. 2).

Key Directive: Don't use "static flow rate" to evaluate a drinker's merit or to manage a drinker line. Learn about best watering management practices and much more at Ziggity's Poultry Watering U website.

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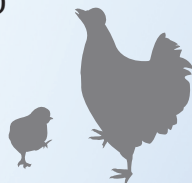


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■ PRODUCT REVIEW



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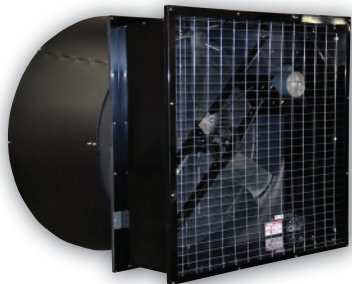
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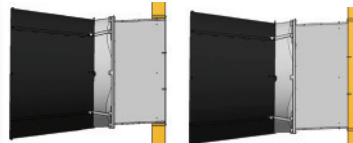
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Maria Lange

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