

## Client Focus

# A Generation Is Changing the Global Food Chain

Demand from millennials for healthy foods is revolutionizing the food industry

### CLIENT PROFILE

Tony Arnold, a pioneer in probiotics, fights food scares with natural solutions

### EQUITY RESEARCH

Convenience shoppers are driving food processing innovation





## A Long History of Navigating Turbulent Markets



Uncertainty defines the summer of 2016.

While stock indices recovered to set new highs in July after the U.K.'s shocking decision on June 23 to exit the European Union, market volatility will likely remain high the rest of the year. An unstable political environment, from terrorism to the migration crisis, does not add up to a smooth ride ahead. In addition to all of that, of course, we are moving into the final leg of a historic U.S. election season.

This is not the first time William Blair, as an 80-year-old firm, has weathered such uncertainty. And it won't be the last. We have a long history of evaluating and analyzing the likely effects of world events on investments. In the case of Brexit, we will not know the full impact of the vote for some time. But we are closely monitoring the situation, while staying focused on our clients' needs.

William Blair has always taken a long-term view when it comes to investing. This issue of *Client Focus* provides a good example, looking at how generational demand for more healthy food is changing the global food chain and driving new long-term investment opportunities.

We hope you enjoy the articles, which focus on some of the fastest-growing companies in the food sector. This health trend is driving M&A activity in new directions as we see in our client profile of Tony Arnold. He led the Nutrition Physiology Company with its innovative natural feed additives for cattle and poultry before it was sold to Chr. Hansen earlier this year in a transaction guided by William Blair.

I also want to thank you for embracing our new client portal, My William Blair. We are excited about this new system, which allows you to access your investment data anytime, anywhere, and with any mobile device. In addition, it provides secure tools so advisors and clients can easily share investment reports.

We value the trust you place in William Blair and our investment professionals. I hope you are having a great summer and have a chance to spend some extra time outdoors enjoying the season.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Ettelson'. The signature is fluid and stylized, with a large initial 'J' and 'E'.

John Ettelson  
President and CEO

# The Millennial Challenge: A Generation Changes the Global Food Chain

Today's food chain is bigger, more global, and more complicated than ever.  
More people. More choices. More regulations. Constant change.  
But in the food chain one thing never changes: *the consumer is king.*

Consumers in rich and emerging economies want food that is more healthy, more convenient, and more labeled. And millions of these consumers, at least in the richest countries, are willing and able to pay up for quality. Embodying these demands, analysts say, are millennials.

There were 92 million Americans born between 1980 and 2000, making millennials the single largest U.S. generation on record, far more than the 78 million baby boomers born from 1945 to 1964.

“Who is going to drive food industry growth over the next decade? It's the millennials because they are in their family formation years,” says William Blair analyst Jon Andersen. “They think about health and wellness differently than prior generations. The companies best aligned to support this movement are key for us.”

A look at the latest food industry trends is a picture of change: entrepreneurs in action, scientists hard at work, and businesses as creative and flexible as any Silicon Valley start-up. The vitality can be seen at any food trade show.

At the annual Fresh Produce show in Chicago in June, for example, 13,000 people attended and exhibitors from 30 countries displayed everything from avocados from Mexico to green beans from Florida and tomatoes from

Canada. But many more displayed the latest in “fresh” packaging, storage, tracking, ordering, and shipping, all with web-based networks and devices.

“Millennials are very plugged in and make far fewer trips to the grocery store than other generations,” says Matt Lally, a food analyst with the Nielsen Group in Chicago. “They can be reached digitally.”

## Organic, natural, transparent

Concerns about obesity, food safety, antibiotic resistance, and sustainable and humane agriculture are driving demand for natural and organic foods—everything from fruits and vegetables to meat and grains.

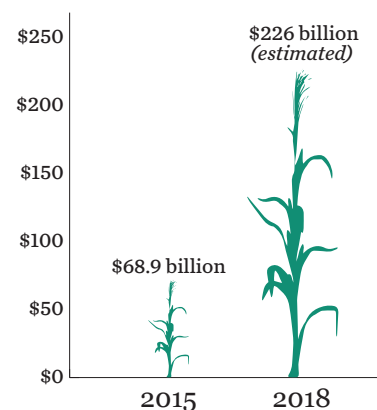
U.S. retail sales of natural and organic foods and beverages grew 10.9% in 2015, to \$68.9 billion, according to *Nutrition Business Journal*.

By 2018, *NBJ* says, natural, organic, and better-for-you products sales could reach \$226 billion.

On July 7, French yogurt giant Danone, the maker of Dannon yogurt, agreed to buy U.S. organic dairy and food producer WhiteWave Foods for \$12.5 billion, specifically citing the fast-growing market for organic food in the United States.

But millennials also want assurance on food quality—where it came from, the ingredients, and how it was made.

## Sales of Natural and Organic Food on the Rise



Source: Nutrition Business Journal

That means a trusted and informative food product label.

“Transparency is a basic consumer expectation. There isn’t a premium for being transparent but there certainly is a discount if you’re not,” says Charlie Arnot, CEO of The Center for Food Integrity. “Labeling is certainly one way to demonstrate transparency.”

The Grocery Manufacturers Association (GMA) has responded with its SmartLabel program. By scanning a barcode on food packages with a smartphone, consumers can retrieve detailed ingredient information.

More than 30 companies have committed to SmartLabel, and the GMA projects nearly 30,000 products will have the label by late 2017.

*“...health and wellness brands are growing much faster—10 times the rate of conventional food companies.”*

### In the spotlight: GMO foods

In many ways, the biggest challenge facing food companies today is GMO labeling.

Genetic engineering—insertion of foreign genes into plant or animal species to promote growth or insect and disease resistance—has been an emotional issue for the last 30 years.

“Big companies like Walmart are demanding to know even down to what seed was used to grow the feed that was fed to animals to create the steak we consume,” says Larry De Maria, a William Blair analyst.

Food makers and farmers have resisted such labels for decades as unnecessary and costly. Nonetheless, the consumer remains king. And now even lawmakers are listening.

Spurred by a state GMO law in Vermont, Congress passed and

President Obama signed in July a federal bill to establish a single nationwide, mandatory label for products containing genetically modified ingredients.

“What the food manufacturers want are federal guidelines. It becomes a problem if you have to label a package that is headed to Vermont differently than something headed to another state. It can be costly, especially if different states have different guidelines,” Andersen says.

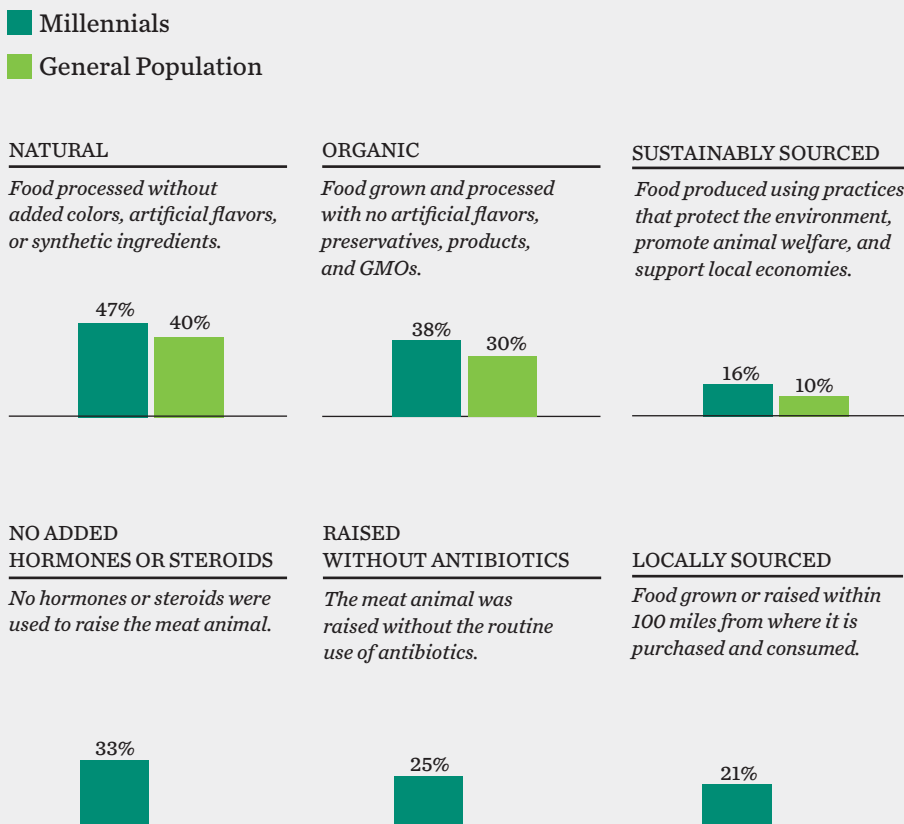
### To millennials and beyond!

It is hard to overestimate the extent to which millennials are reshaping not just what we eat, but how, when, and where we eat and shop for food.

“Food companies focused on health and wellness brands are growing much faster—10 times the rate of conventional food companies,” Andersen says. “So you have this faster growth, price premium, and market share runway.”

## Health and Wellness Influence on Millennial Food Purchases

A higher proportion of millennials buy foods labeled natural, organic, and/or sustainably sourced compared to the general population, according to an International Food Information Council Foundation survey. For food labeled no added hormones or steroids, raised without antibiotics and/or locally sourced, 21% to 33% of millennials surveyed buy food based on those labels—near the general population trend.



Source: International Food Information Council Foundation Food and Health Survey 2015  
Note: % of respondents surveyed who regularly buy food based on advertised label above.

He points to companies to watch like WhiteWave Foods (plant-based and organic foods and beverages), The Hain Celestial Group (healthy food brands), Amplify (snack brands), and Inventure (better-for-you snacks). Because they meet millennial health and wellness standards, such firms are positioned to grow at rates in excess of conventional food companies.

Animal welfare is another issue that has zoomed into the forefront of consumer concerns with the rise of millennial buyers. Giant poultry producer Perdue, a leader in cutting antibiotics in its animals, announced a complete overhaul of its handling of flocks to provide sunlight, space, fresh air, and other more humane conditions for its 676 million birds now “confined” in packed barns.

But there is a final overriding theme of all these trends: e-commerce.

*Digital grocery sales are expected to expand significantly in the coming years.*

While digital orders and deliveries are still a small portion of grocery sales today, such sales are forecast to expand significantly in the years ahead. One sign is the growth of personal online shopping services like Instacart and Google Express.

“When we talk about the millennials and their desire for more convenience solutions, this is an area that really resonates with them,” Nielsen’s Lally says.

Analysts note that the digital giant Amazon.com is rolling out its own private-label foods and perishables. And it’s an opportunity for companies like TreeHouse Foods, a supplier of private-label brands.

“It’s early days for Amazon and food. They haven’t focused much on private-label brands but they are about to roll out their own—Happy Belly, Wiggly Prime, Mama Bear,” says Andersen. “These brands are going to be on everything from nuts to tea to coffee to baby food.”

## Convenience shoppers driving innovation in food processing

Processing and packaging food to meet the demands of today’s busy consumer is energizing the equipment manufacturing industry, says William Blair equity research analyst Larry De Maria.

Companies are developing new technologies to more efficiently prepare, package, or preserve fruits, vegetables, and meat so that the products are fresh, nutritious, and easy to use.

“Even if you’re going to Whole Foods and want to buy something organic, it’s still going to be processed,” De Maria says. “The food you’re getting might have to be cut or frozen or processed even if it’s organic.”

De Maria points to a couple of Midwest companies—JBT and Manitowoc Foodservice—as good examples of how innovators are cashing in on the latest processing, packaging, and preparation trends.

JBT designs and makes everything from industrial freezers and ovens to systems that prepare ready-to-use meals. JBT’s technology helps its customers add value to a product, like meat, where their machines slice, trim, season, and package the cuts of meat so they are “ready to use.”

Manitowoc manufactures high-speed ovens, fryers, ice makers, and other foodservice equipment to automate kitchens in quick-service restaurants—a savings on labor and energy costs.

“The competitive edge in the food industry for these products will also feed more demand to install them,” say De Maria, noting that William Blair recently initiated coverage of both JBT and Manitowoc given their growth opportunities.

*To receive De Maria’s research reports, contact your William Blair advisor. Also available is a consumer food industry report by William Blair analyst Jon Andersen.*

Visit [williamblair.com/ResearchCoverage](http://williamblair.com/ResearchCoverage) for disclosure information.



# Tony Arnold Fights Food Scares With Natural Solutions



Growing demand for natural and organic foods has been a catalyst for M&A activity in the food industry, including the 2016 sale of Nutrition Physiology Company to global bioscience company Chr. Hansen, guided by William Blair.

Food scares tied to everything from salmonella to chemical antibiotics shake the world food chain almost daily. But Tony Arnold is delivering solutions that have been cheered by both consumers and food companies—and they're all natural.

The company Arnold led for nearly five years, Nutrition Physiology Company (NPC), is a leading developer of cattle and poultry probiotics, a natural feed additive to enhance growth and alternative to antibiotics, which have been tied by health researchers to growing drug resistance in the U.S. population.

Antibiotics are fed to animals to promote growth and keep them healthy by killing “bad” bacteria, while probiotics by contrast can be seen as natural “good” bacteria. The micro-organisms improve digestion and nutrient absorption in animals. But many farmers, Arnold says, still lean to using antibiotics for what they see as better weight gains in the animals and thus more profits when sold to meatpackers.

But times are changing.

“Consumers don’t want antibiotics, they worry about them,” says Arnold. “We need to reduce their use. They’ve already done that in Europe and the U.S. is following behind them.”

That’s been good news for companies like NPC, which was founded 23 years ago by three U.S. animal scientists concerned about food safety.

## Consumers, regulators demand fewer antibiotics

The Food and Drug Administration in 2013 issued guidelines to phase out feeding antibiotics to cattle, pigs, and poultry as a growth enhancer, citing worries that

decades of using these chemicals contributed to emerging antibiotic-resistant strains of bacteria.

Since the FDA acted in 2013, giant food companies including Walmart, McDonald’s, Tyson, and Pilgrim’s have said that they will reduce or eliminate the feeding of antibiotics to chicken beginning in mid-2017.

*Probiotics are a natural feed additive to enhance growth and an alternative to antibiotics.*

“When Walmart says we want beef produced without antibiotics or we want chicken produced without antibiotics, they go to Tyson and Pilgrim’s, the two largest meat companies, and say ‘stop using it,’” Arnold says. “Therefore, if producers want to sell their animals, they have to do it and they’ve got to find an alternative.”

NPC’s Bovamine branded probiotic products for beef and dairy cattle are made from a bacteria strain of *Lactobacillus* that naturally lives in animals’ digestive tracks.

## Probiotic demand spurs NPC acquisition

It all adds up to long-term growth for probiotics. The probiotics market is projected to reach \$4.4 billion by 2019, representing a 7.7% annual growth rate from 2014 to 2019, according to the research firm Markets and Markets.

That outlook and NPC’s dominance in U.S. markets—nearly 90% market share of probiotic sales in beef feed lots and 36% to large dairies—were key factors that made NPC an attractive acquisition earlier this year.

William Blair in 2016 guided the sale of NPC, a portfolio company of The Halifax Group, to Chr. Hansen, a global bioscience company based in Denmark, for \$185



million, about 18.5 times earnings before interest, taxes, depreciation, and amortization.

“NPC had a good position in the U.S. and we were securing registrations internationally. But what we needed was someone with an international presence, a manufacturing footprint, and a regulatory position to take this business globally,” says Arnold. “It would have been a long, slow process for me to hire people to do this internationally.”

The William Blair team included Jim Bertram, Brent Smith, and Chu-An Lee, who had a lot of experience in the food space. They got NPC in front of the right people, “which helped us deliver the sale and achieve the multiplier we received,” Arnold says.

Arnold’s career in food and agriculture spans more than 35 years. He joined NPC as a board member in 2011 and was named CEO later that year to lead the company’s expansion. That’s when NPC began focusing on diversifying beyond its sweet spot in the beef industry to dairy herds and eventually to poultry flocks.

Arnold says the key to the dairy market was stabilizing NPC’s probiotic feed additive so it would not need to be stored in the freezer at dairies. NPC worked with a technology company to create a shelf-stable product that hit the market in 2013.

“That’s when we began seeing 20% growth per year,” says Arnold. “We took the same technology to the poultry industry and launched PoultriMax at the end of 2014.”

### *The probiotic market is on the cusp of a technology revolution.*

Arnold, who returned to his private consultancy business after the sale of NPC to Chr. Hansen, believes the probiotic market is on the cusp of a technology revolution. He says the advancements in molecular science will eventually be applied to new probiotics that will enhance food safety. Such technology could lead to fewer cases of food poisoning caused by E.coli, listeria, and salmonella.

NPC had done research with “friendly” bacteria in hotdogs that successfully attacked listeria, Arnold notes. But consumers will have to accept the addition of a culture system into their meat, similar to the cultures now universally used in cheeses.

“This is the forefront of a new science for both the food and animal industry; probiotics are right there,” Arnold says. “In a few years it might not be probiotics as we know them now that will be used, but they could be the foundation for what is going to be used.”

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## Urban Farms Are Growing More Than Food



*Photos of Englewood greenhouse courtesy of Growing Home*

The “locavore” movement—eat what you grow locally—is popular among millennials and driving creation, among other things, of urban farms within big cities. These often provide fresh produce in “food deserts” of high crime and poverty where food markets have closed.

Nowhere is this trend more valuable than in the impoverished neighborhood of Englewood on Chicago’s South Side, where several groups are growing food but also providing opportunities to feed hearts and minds.

Among the growers are eight elementary schools. With the support of the Whole Kids Foundation, started by Whole Foods Market Inc., along with community partners like William Blair, students are learning how to plant and maintain their school gardens as well as the vital benefits of a healthy diet.

“We really focus on that connection for kids to understand where their food comes from and we know that when they grow it they will eat it,” says Kim Herrington, with Whole Kids Foundation.

Englewood will also have its first Whole Foods Market on September 28 when the company opens an 18,000-square-foot natural and organic grocery. The project is supported by the city’s urban initiative.

The neighborhood is also home to Chicago’s first USDA-certified organic farm, Growing Home, which includes a job training program for low-income residents and those with police records.

*William Blair*

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## CLIENT SERVICE

# My William Blair: Transforming the Client Experience

We have completed the final phase of our two-year initiative to transform your client experience. We began by rolling out a new client portal that provides a state-of-the-art experience including a mobile-ready site, access to dynamic individualized investment reports for client accounts, and secure tools for sharing documents between advisors and clients.

In the second phase, we converted those clients whose assets were held in custody by William Blair to National Financial Services LLC (NFS) as our custody and clearing platform, effective May 16, 2016. NFS is one of the premier clearing providers in the industry, offering access to an industry-leading brokerage platform. This operational change enables us to provide you with industry-leading services, technology, and support for your investment accounts.

William Blair and your dedicated advisory team will continue to provide the trusted investment services that you have come to rely on. As always, we remain committed to protecting the safety and security of your account(s). If you have any questions, please contact your advisor.

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