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Giving ingredient by-product a second life, p. 28
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<th>Solvent Residues</th>
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*These statements have not been evaluated by the FDA*
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If FDA Defines Natural, Then What Happens?

Newly released survey data show 46% of U.S. consumers believe the government regulates “natural” food-marketing claims, according to the Natural Marketing Institute and The Organic and Natural Health Association. Those in the industry know better, of course.

FDA has consistently declined to formally define what is or isn’t natural and as such has left companies wide-open to class action lawsuits any time someone takes umbrage with a firm’s “natural” claims. But there could be an end in sight.

In November, FDA began requesting public comments on whether it should define natural, what the definition should be, and how it should be regulated. (See page 14 for more.) While the agency is only asking for comments at this point and has not said it intends to engage in further rulemaking, you could excuse some for being hopeful that FDA could, in the near future, finally define natural.

Hypothetically, then, what types of changes could a standardized definition bring?

Pending litigation comes to mind, first and foremost. General consensus is that a formal definition should help reduce the amount of future litigation related to “natural” claims. But what of cases currently standing? Would courts be willing to stay pending lawsuits on the chance that FDA could, at some point soon, define natural?

“It is an interesting situation,” says Justin Prochnow, an attorney and shareholder at Greenberg Traurig LLP who has written several past articles for Nutritional Outlook on the natural-claims issue. “Courts have shown a willingness to stay pending lawsuits on the chance that FDA could, at some point soon, define natural.

Pending litigation comes to mind, first and foremost. General consensus is that a formal definition should help reduce the amount of future litigation related to “natural” claims. But what of cases currently standing? Would courts be willing to stay pending lawsuits on the chance that FDA could, at some point soon, define natural?

Prochnow says, it will be interesting to see what the courts might do.

One thing you can count on, however, is that if FDA sets up parameters for “natural,” expect more companies to start seeking “natural” certification.

“Without a doubt, I would expect that if a formal definition of natural is ever created, we would end up with a system similar to the National Organic Program, and there would be a number of certifying agencies popping up to certify companies as natural,” Prochnow predicts.

For nearly a decade, the Natural Products Association (NPA; Washington, DC) has operated its NPA Natural certification seal for home-care and personal-care products. Dan Fabricant, PhD, executive director and CEO of NPA, says that “natural” certification is about “quality,” pointing out that the association’s “natural” standard has “a clear scientific base.”

Jaclyn Bowen, Director of Consumer Values Verified, NSF International (Ann Arbor, MI), emphasizes the importance of third-party validation. “While an established definition of natural could be a start toward increasing claims transparency and credibility, she says, “independent third-party certification is necessary to confirm the validity of the claim.”

“The problem that exists today is there aren’t a lot of product companies seeking ‘natural’ certification, which has contributed to consumer mistrust,” she adds.

Most importantly, will a natural definition enact change where it matters—in the minds of consumers? “I’m not really sure a formal definition of natural really would help consumers all that much. It would mostly help companies know the parameters for permissible claims without the serious threat of litigation,” Prochnow says.

“Consistent with what NSF International’s Consumer Values Verified survey found about the lack of understanding about gluten-free claims, even when a federal formal definition exists, having a definition for natural does not mean that consumers will understand what the claim actually means,” Bowen agrees. For that, she says, more education is needed. “At a minimum, a definition will standardize the claim of ‘natural’ and therefore contribute to some consistency in the marketplace of these claims.”

Until FDA reveals more of its intentions, the whole thing “is all a little bit of a mystery,” Prochnow says. “The biggest unknown is figuring out what the FDA’s end game is with this comment period.” Bowen adds that “it’s essential to confirm how the FDA plans to enforce the definition in the marketplace.”

For now, Fabricant says, his feeling is positive. “What we don’t want to see is 50 different state definitions of natural. A federal definition of natural would solve that problem, so we see it as good for business and consumers.”

Jennifer Grebow
Editor-in-Chief
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USPlabs Execs Arrested in Joint Agency Sweep for Illegal Products

USPlabs LLC, a Dallas-based company charged with illegally selling fraudulent products as dietary supplements, faces severe criminal charges, the U.S. Department of Justice (DOJ) announced at a November 17 press conference. The USPlabs case is part of a joint, year-long sweep by numerous federal agencies for illegal products in the supplements industry.

At press time, four individuals were arrested in connection with the USPlabs case, and two others planned to self-surrender. The individuals facing charges include the company’s CEO, its president, a company consultant, executives involved in package design and quality assurance, plus the company’s contract manufacturer, S.K. Laboratories (Irvine, CA). USPlabs’ CEO Jacobo Geissler, president Jonathan Doyle, and package-design employee Matthew Herbert were also charged with obstructing FDA proceedings and for conspiring to commit money laundering.

USPlabs is best known for marketing weight-loss and workout products Jack3d and OxyElite Pro. It faces an 11-count indictment charging the company with, among other crimes, a “conspiracy to import ingredients from China using false certificates of analysis and false labeling,” the DOJ said. The company allegedly lied to retailers and wholesalers, stating that Jack3d and OxyElite Pro contained natural plant extracts, when in fact products contained DMAA, a synthetic stimulant FDA classifies as an illegal ingredient in dietary supplements.

USPlabs has been on FDA’s radar for years. In 2013, the company entered an agreement with FDA to recall OxyElite after the product was linked to an outbreak of liver-toxicity reports. The DOJ said that despite USPlabs’ agreement to recall the product, the company instead “engaged in a surreptitious, all-hands-on-deck effort to sell as much OxyElite Pro as it could as quickly as possible.”

Numerous agencies are now working to pursue companies illegally selling products as dietary supplements, including FDA, the FTC, the U.S. Postal Inspection Service, the Department of Defense, and the U.S. Anti-Doping Agency. Since November 2014, 89 cases have been filed against individuals and companies. During this November’s press conference, the DOJ, working with FDA, announced five new civil cases against products making illegal drug claims to cure diseases such as Alzheimer’s disease, herpes, and cancer and containing drug ingredients not listed on product labels, as well as a slew of recent FTC civil actions.

The dietary supplement industry’s response to the sweeping crackdown was unanimously positive. Leading U.S. industry associations have longed urged agencies like FDA to use their enforcement power to pull illegal products from the market.

“This afternoon’s press conference was welcome and overdue, and we were gratified to see the breadth of the agencies represented,” said Loren Israelsen, president of the United Natural Products Alliance (Salt Lake City, UT), in a press release. “For our part, we will continue to work closely with all regulators on the types of cases they described today to support and encourage a supplement industry that operates within the law and continues to be deserving of widespread consumer trust.”

“We have long called on the government to prosecute illegal activity to the full extent of the law, and today’s action demonstrates the government’s vast power to regulate this industry,” said the Natural Products Association (Washington, DC).
Natural Testosterone Booster

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.
FDA Seeks Comments on Use of the Term Natural

In a sign that FDA may finally be inching toward creating a formal definition of the term natural, the agency announced it is seeking public comments on the use of the term on food labeling. The move marks a possible shift in the agency’s approach to natural claims, a labeling issue it has historically avoided addressing with a formal definition.

Consumers and food companies alike have long called for FDA to issue a formal definition of natural. FDA’s announcement was prompted by three citizen petitions asking FDA to define natural for use in food labeling and one citizen petition asking FDA to prohibit use of the term on food labels.

“Because of the changing landscape of food ingredients and production, and in direct response to consumers who have requested that the FDA explore the use of the term natural, the agency is asking the public to provide information and comments on the use of this term in the labeling of human food products,” reads the FDA update.

The agency also cited requests from federal courts for determinations from FDA whether natural labeling could be applied to ingredients produced through genetic engineering or foods containing high fructose corn syrup.

In requesting comments, FDA is specifically interested in the following:

- Whether it is appropriate to define the term natural
- If so, how the agency should define natural
- How the agency should determine appropriate use of the term on food labels

FDA’s announcement also explains that while the agency has avoided establishing a formal definition of natural in the past, it has considered the term to mean “nothing artificial or synthetic (including color additives regardless of source) has been included in, or has been added to, a food that would not normally be expected to be in that food.” However, the agency’s past guidance has not addressed the inclusion of genetically modified organisms in products labeled as natural, as well as a range of other factors that consumers may not associate with natural products.

Regarding its previous stance toward natural, FDA explained, “this policy was not intended to address food production methods, such as the use of pesticides, nor did it explicitly address food processing or manufacturing methods, such as thermal technologies, pasteurization, or irradiation. The FDA also did not consider whether the term natural should describe any nutritional or other health benefit.”

FDA began accepting public comments on November 12, 2015. To submit comments, visit www.regulations.gov and type FDA-2014-N-1207 in the search box.

CRN Pursuing Voluntary Supplement Registry

In a move designed to promote transparency and build trust with consumers, the Council for Responsible Nutrition’s (CRN; Washington, DC) Board of Directors has approved in concept a voluntary product registry for dietary supplements. At the time this article went to press, CRN was investigating different options for establishing the registry, such as creating a new platform or working with an existing database.

“I firmly believe CRN is uniquely positioned to lead the industry toward developing measures to improve quality and build consumer trust,” said Steve Mister, president and CEO, CRN. “This database of product information is the first step in that process.”

The CRN Board adopted the proposal for the registry at its October 2015 board meeting during the annual CRN Conference, which took place soon after Mister called on CRN members to support the registry during his president’s address. Based on negative media coverage of industry this year, Mister saw this as a critical time for industry to take steps to provide more transparency about dietary supplements in the market.

“If we ignore the signs, we risk becoming irrelevant,” said Mister during his president’s address. “If we wait too long, we will get left behind. If we consider ourselves impervious, we may get blindsided by our vulnerabilities.”

Existing databases that could be possibilities for the registry include the National Institutes of Health’s Office of Dietary Supplements database or Underwriters Laboratories’ Clearview program, said Mister. CRN said it would investigate these databases as well as the possibility of creating a new platform and then provide a report and recommendations based on its investigation at its December Board meeting for a possible Board decision. The Board would also consider a time frame for implementation, said Mister.

“The Board’s decision to move CRN toward an industry-directed product database of dietary supplements follows nearly a year of discussions and investigations by the Board into a viable system of providing more visibility for regulators into the size of the industry and basic information about products (brand names, ingredients, supplements facts labeling, etc.),” said Mister. “This marks CRN’s determination to voluntarily provide more transparency about dietary supplements in the market.”

Mister added that CRN is also seeking feedback from its members, other stakeholders, and other industry trade associations on this initiative.
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Holding the Line

Bayer’s FTC legal battle triumph underscores the rightful difference between dietary supplements and drugs.

BY JENNIFER GREBOW, EDITOR-IN-CHIEF

Bayer Corp. celebrated a landmark victory in late September when a U.S. district court judge ruled in the company’s favor in a Federal Trade Commission case seeking to hold the company in contempt for its probiotic-supplement health claims. In his written opinion, New Jersey federal district court judge Jose Linares ultimately affirmed that dietary supplement structure-function claims must have “competent and reliable scientific evidence,” but that the evidence does not necessarily require randomized controlled trials.

Background

Back in September 2014, the U.S. Department of Justice, on behalf of the FTC, filed a motion of contempt against Bayer alleging that Bayer violated the terms of a 2007 FTC-issued consent order over Bayer’s One-A-Day WeightSmart vitamin. That 2007 consent order prohibited Bayer from making any future weight-loss or disease claims without supporting “competent and reliable scientific evidence”—the FTC’s longstanding requirement for claims substantiation. The motion of contempt filed in 2014 accused Bayer of again making unsubstantiated structure-function claims, this time for its Phillips’ Colon Health probiotic supplement.

According to the FTC, the company did not possess adequate evidence to support its advertising claims that the product “helps defend against occasional constipation, diarrhea, gas, and bloating.” These are implied claims to prevent, treat, or cure constipation, diarrhea, gas, and bloating, the FTC suggested.

For its expert witness, the agency enlisted gastroenterologist Loren Laine, MD, a professor at Yale University School of Medicine. Laine asserted that in order to support the claims, Bayer should have conducted two randomized, double-blind human clinical trials (RCTs) in the target population, on a product comprising the same combination of bacterial strains in the Phillips’ Colon Health product.

Bayer pointed to more than 100 scientific articles in the public domain supporting its structure-function claims.

Bayer did not have two randomized, double-blind human clinical trials, but the company did point to more than 100 scientific articles in the public domain that it used to support the structure-function claims for its probiotic species. At this point, one should note that these types of probiotic claims are not unique to Bayer; other probiotic supplement companies have long made similar claims in the past.

Bayer presented its own experts in the case—M. Brian Fennerty, MD, an expert in gastroenterology and clinical trial design, and Daniel J. Merenstein, MD, an expert in medicine, clinical trial design, and probiotics. Both testified that the experts in their field would not require gold-standard RCTs to serve as necessary evidence to substantiate Bayer’s claims.

Supplements Are Not Drugs

This September, Judge Linares ultimately ruled for Bayer, finding that the company’s evidence was “competent and reliable” to support its structure-function claims. The judge’s opinion strongly upholds the right of structure-function claims to rely on the totality of evidence. He also definitively affirmed that the law governing supplements, the Dietary Supplement Health and Education Act (DSHEA) of 1994 amendment to the Federal Food, Drug, and Cosmetic Act, permits dietary supplements to make structure-function claims and that there is a distinct line between the substantiation required for drug claims and the “lower substantiation” requirement for supplement claims.

“Recognizing the health benefits of dietary supplements,” he wrote, “Congress enacted

“Congress enacted DSHEA to ensure that supplements can be marketed and sold without following the stringent requirements imposed on drugs,” Judge Linares wrote.
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DSHEA to ensure that supplements can be marketed and sold without following the stringent requirements imposed on drugs. Although new drugs must be preapproved by the Food and Drug Administration...and traditionally must be supported by randomized, placebo-controlled, double-blind clinical trials...dietary supplements need not."

Here are some key takeaways from Judge Linares's opinion:

**Totality of Evidence**

“For dietary supplements, the only substantiation requirement is that claims be ‘truthful and not misleading’” Linares wrote. As long as a supplement does not make drug-type “diagnose, mitigate, treat, cure, or prevent” claims, “it is not regulated like a drug,” he said.

Linares confirmed that DSHEA does not specify what types of studies or evidence are needed to support a non-drug structure-function claim; moreover, he underlined, the FTC’s own advertising guidance for dietary supplements only states that supplement claims must hold “competent and reliable scientific evidence,” which the agency defines as “tests, analyses, research, studies, or other evidence based on the expertise of professionals in the relevant area, that have been conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results.”

In short, Linares wrote, structure-function claims do not require the type of RCTs required for drug claims. “[T]he FTC Guidance makes clear that this standard is not the drug standard,” he wrote. FTC’s own guidance states that there is “no fixed formula” for the types and number of studies required. The agency’s guidance states that while RCTs are “the most reliable form of evidence,” they are not required, and other types of evidence should also be considered, including animal studies, *in vitro* studies, and epidemiological studies.

Linares also pointed out that experts in the field confirmed that the 100-plus scientific articles Bayer used to substantiate its claims were adequate; moreover, he said, the company did not need to possess physical copies of those studies, which the company accessed through subscriptions to scientific journal databases. His opinion went into great detail describing Bayer’s process of reviewing the science in the public domain, which included reading new studies weekly on an ongoing basis to make sure its claims were substantiated.

Other takeaways from the opinion: A company is not required to perform studies on its exact product formulation or target population, Linares said, pointing out that FTC’s guidance states that companies can use tests done on a “similar formulation” and to “extrapolate” between populations.

Also of note: In discussing some of the studies presented, Linares pointed out that even if one of the studies Bayer referenced...
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did not include enough subjects to generate a statistically significant benefit, "the study does not undercut Bayer’s substantiation of [Phillips’ Colon Health] because many successful products, including FDA-approved drugs, have neutral studies."

**Disclaimers Matter**

The judge also repeatedly mentioned Bayer’s use of the industry-standard disclaimer, “This product is not intended to diagnose, treat, cure, or prevent any disease.” He pointed out that the Phillips’ Colon Health packaging and advertisements all carry this disclaimer, which would contradict any suggestions that the company was making explicit or implicit drug claims. Additionally, he pointed out that the company’s ads depict only healthy people, not sick people.

“I think we should take a moment and say thank you,” said Steve Mister, president and CEO of CRN.

**Experts Matter**

Judge Linares heavily questioned the expertise of the FTC witness, Dr. Laine. On the stand, Laine admitted that he had never written any articles or books on probiotics, had never conducted a probiotics study, and had no knowledge of the regulations governing dietary supplements and how the requirements for structure-function claims differ from those for drug claims. In fact, Laine said, he wasn’t aware of any dietary supplements with evidence meeting his prescribed study design, which he said in itself does distinguish at all between supplements and drugs.

Judge Linares contrasted Laine’s lack of pertinent expertise in the case with that of Bayer’s own medical witnesses, who did have expertise in the field, and pointed out that both witnesses testified that a majority of their colleagues would disagree with Laine’s argument that RCTs are required to substantiate probiotic claims like Bayer’s.

**Constipation, Diarrhea, Gas, and Bloating Are Not Disease Claims**

Bayer’s probiotic claims are not disease claims, Judge Linares stated. But he went further than that. “Even if Bayer made implied claims regarding prevention, treatment, or cure, they are not disease claims,” he wrote. “Although the words prevent, treat, and cure often signal a disease claim, the Government has not proven that Bayer advertised [Phillips’ Colon Health] to prevent, treat, or cure any disease. Instead, the government asserts that Bayer advertised [Phillips Colon Health] to prevent, treat, or cure constipation, diarrhea, gas, and bloating. These are not diseases, but rather variations of the normal state of health.”

Claims of supporting or promoting digestive health are structure-function claims, he said, and claims of alleviating symptoms like gas and bloating are structure-function in nature because they do not characterize a specific disease.

Bayer’s probiotic claims, he noted, are quite common within the industry. “The Government has not pointed to any instance when it has asserted that these claims are disease claims,” he wrote. “If these claims were disease claims, then many of the most popular probiotic supplements on the market would be in violation of the law and subject to seizure by the FDA.”

**No Rewriting History**

Most importantly, Judge Linares pointed out that the agency cannot, at this later date, reinterpret its own 2007 consent order by instructing that “competent and reliable scientific evidence” now take the form of two RCTs. “The Government’s position that Laine-level RCTs are required is found nowhere within the four corners of the consent decree,” he wrote. “The consent decree that Bayer agreed to in January of 2007 speaks only of competent and reliable scientific evidence.”

As a result, Linares said, “the Government cannot try to reinvent this standard through expert testimony”—namely, the sole opinion of Dr. Laine—especially when what the FTC now asserts is necessary runs counter to what supplement laws and the agency’s own guidance state are required for supplement claims.

**Industry Celebrates**

The dietary supplement industry cheered the denial of contempt at industry events this fall. "I think we should just take a moment and say thank you," said Steve Mister, president and CEO of the Council for Responsible Nutrition (CRN; Washington, DC), at a SupplySide West trade show roundtable in October. While he noted that the FTC has 60 days to appeal the decision, "it is a great moment for the industry because it does set the FTC back on their heels once again and tells them that you cannot superimpose the RCT standard over supplements making structure-function claims that, by guidance and of long history, have been allowed to have a variety of evidence in place.’’

It’s also a win for probiotics, pointed out Ray Matulka, PhD, director of toxicology at Burdock Group (Orlando, FL), during his SupplySide West presentation on probiotic regulations. “This claim of helping to defend against occasional constipation and other issues is typically considered a structure-function claim in that it is about how the probiotic is helping change your body by the structure or function of the body. [This case] was a very good thing for probiotics in general because it is really helping to set the stage that the FTC cannot extend a drug-type terminology to probiotics when the claim itself is of a structure-function nature.”

Natural Products Association (NPA; Washington, DC) CEO and executive director Dan Fabricant, PhD, who was also part of the SupplySide West roundtable, said via press release, “This case is evidence that the FTC is willing to try and expand their authority through enforcement decisions, even with a bad case which they had from the start, and this remains one of the biggest, if not the biggest, concern for the industry…NPA felt the FTC would have set a dangerous precedent had the overbearing standards it was seeking become affirmed.”

Supplement leaders also encouraged industry members to read the judge’s opinion. “The decision discusses what Bayer does—really endorsed it—and is a roadmap for both methods and content that the substantiation allows,” said attorney Marc Ullman of Rivkin Radler LLP during the SupplySide West roundtable. “So if any of you are involved in making claims, I really do urge you to read that opinion.”
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BY INNOVA MARKET INSIGHTS

This is a great time for fiber. In the midst of increasingly difficult health-claims challenges in some countries, food and beverage firms are increasingly promoting more-general health and wellness benefits and renewing attention on well-known ingredients that consumers already link with health—ingredients like fiber. Fiber has long been associated with a range of benefits, including digestive/gut health, cholesterol reduction, weight management, and blood sugar maintenance.

Nearly 3.6% of global food and drink launches recorded by Innova Market Insights in the 12 months ending June 2015 used “high fiber,” “source of fiber,” or “added fiber” claims. In North America, these claims rose to 4.8% of launches and over 9% in Australia/New Zealand. (In Asia, however, fiber claims fell to about 2% of launches.)

Fiber claims are used for many types of food and drink products, but two-thirds of U.S. fiber-claim launches were in one of four categories: cereal, bakery products, snacks, and ready meals/prepared foods.

**Cereals**

Cereals account for the highest number of fiber-related claims overall—about a quarter of total fiber claims. Taking into account the relatively low number of launches in the cereal category, fiber-related claims thus accounted for over one-third of total cereal introductions, including both breakfast cereals and cereal bars, many of which are also marketed on a whole-grain platform. The use of oats in cereals has been rising for some time, for instance, with many products based on high-fiber and whole-grain platforms.

Virtually all breakfast biscuit launches were promoted as high in fiber and/or whole grain, and many included fruit and fiber. Eating biscuits at breakfast time is a commonplace ritual in some parts of the world, but brands like Mondelez’s Belvita are aiming to take the concept to new countries. The company began expanding a few years ago in the UK with the 2010 launch of Belvita there as a whole-grain platform. Launched this fall, ThinkThin’s portable, snack-sized Protein Bites are rich in protein (10 g) and fiber (5 g). According to the company, “the new bites mark the first time a leading energy bar brand has launched unwrapped protein and fiber bars in bite-sized pieces.”

**Bakery**

In the United States, bakery products are the second-highest user of fiber-related claims, accounting for just over 15% of such claims in food and drink launches. Within the bakery market, 36% of biscuit launches featured fiber-related claims. But the larger market overall is bread, where over 11% of launches featured a high-fiber claim.

In the biscuits market, a key area of high-fiber activity is in the breakfast category. Virtually all breakfast biscuit launches were promoted as high in fiber and/or whole grain, and many included fruit and fiber. Eating biscuits at breakfast time is a commonplace ritual in some parts of the world, but brands like Mondelez’s Belvita are aiming to take the concept to new countries. The company began expanding a few years ago in the UK with the 2010 launch of Belvita there as a whole-
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Grain biscuit, promoted as rich in cereals, vitamins, and fiber. The launch created a new breakfast biscuits sub-category and heralded activity in other countries, including Germany, the United States, and Australia, as well as helping to revamp existing markets in France and Spain. In the United States, Belvita launched in 2012 under the Nabisco biscuits umbrella, where it also had to pioneer a niche in either a new sweet biscuits sector in the breakfast foods market or a new breakfast option in the cookies market. Kellogg followed Nabisco into the market with its Kellogg’s To Go Morning Breakfast Biscuits in 2013, while General Mills’ Nature Valley cereal bars brand entered the biscuits market in early 2014, as did Post Foods’ Honey Bunches of Oats in 2015. Belvita extended its own biscuits range in early 2015 with Belvita Bites—mini, snack-sized biscuits.

The United States also has its own specialized high-fiber brands, led by General Mills’ Fiber One, which started in breakfast cereals and today covers a range of foods, including cereal bars, cookies, bread products, desserts, and cottage cheese. The brand further extended its range in 2015 with Chocolate Chip Crunchy Cookies, Mint Fudge Brownies, and Cookies & Creme Bars, all with 20% of the daily recommended intake of fiber in each serving.

Traditional whole grains are now offered alongside newer fiber sources such as prebiotics, resistant starch, and beta-glucans.

Consumer Awareness

While more companies are moving to a more-general health and wellness positioning for their fiber products, one thing to remember is that, overall, while consumers seem to understand that fiber is needed for a healthy diet, the more-specific health benefits of fiber are not always so clearly understood, especially now that traditional health-benefit associations with whole grains, oats, and fruits and vegetables are now offered alongside different benefits offered by newer fiber sources such as prebiotics, resistant starch, and beta-glucans.

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Millennial Marketing Strategies

What do millennials look for when buying functional foods and dietary supplements?

BY MICHAEL CRANE, ASSOCIATE EDITOR

With 83 million Americans now between the ages of 18 and 38, the millennial generation accounts for a greater slice of the population than any other consumer group by age. It’s no wonder that nutraceutical marketers are increasingly turning their attention to this younger generation of consumers. And while there are challenges in reaching this Internet-savvy, sustainability-minded generation, there are also opportunities for lifelong loyalty.

“We need to understand who [millennials] are. They are the future of your business, and they have a lot of different attitudes,” said Maryellen Molyneaux, president and managing partner, the Natural Marketing Institute (NMI; Harleysville, PA). Molyneaux shared new market data from NMI on millennial consumers during a SupplySide West trade show presentation in Las Vegas in October, “Targeting Millennials via Product Development, Marketing & More.”

Millennials currently account for 36% of dietary supplement users, alongside 36% of baby boomers (aged 51-69), 18% of generation X users (aged 39-50), and 10% of mature users (aged 70 and up), according to NMI. But one thing that sets millennials apart from other supplement users may be their perception of the role supplements play in living a healthy life.

“When we talk to millennials about using supplements, one of the things we find out is a high number of them use them only when they need them,” said Molyneaux. “So when they’re feeling sick or feel themselves getting sick, it’s almost one-third that say that’s when they use them.”

Food or Gummies, not Pills

Millennials are also more likely than other consumers to prefer getting all their nutrition from foods and beverages, rather than supplements, according to NMI’s data. That preference has, in part, given rise to the functional foods market. While baby boomers and mature consumers decreased their usage of functional foods between 2006 and 2014, generation X and millennial consumers have increased their usage of functional foods. That’s especially true for millennials, with 76% of them reporting they had used a functional food product in 2014, according to Molyneaux.

“They want to take fewer pills, because pills are associated with sickness and with aging and the elderly,” said Therese Dolan, global and North America marketing manager.
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BASF Nutrition & Health (Florham Park, NJ). Dolan shared the stage with Molyneaux for the SupplySide presentation.

Instead of capsules, supplement companies may want to start thinking more about gummies and other alternative delivery methods to better meet the preferences of millennials, said Dolan. Functional foods may also play a key role in reaching these consumers, with millennials reporting they are “willing to pay more for food fortification,” according to Dolan.

The Internet Generation
Talk of the Internet lifestyle is never far away in any conversation about millennials, but how does the Web affect this generation’s attitude toward supplements? For one, it offers them a constantly accessible resource in making health decisions.

“One of the things we have to keep in mind is that they are not blindly trusting whatever is on the label and whatever is being told to them,” said Dolan. “They are doing their research. They have instant access to information.”

For that reason, Dolan advised companies to share details about their products and ingredients in the most transparent ways possible. Now more than ever, it’s important to offer well-researched ingredients and be aware of media perceptions, she said.

Another big opportunity the Internet offers marketers comes from social media, where millennials may share their dietary choices with hundreds of friends and followers.

“They will share that information with their friends,” said Dolan. “You have a huge opportunity to grow exponentially once you have that consumer on board.”

Choosing Sustainable
Along with that desire for transparency and more information, millennials are also showing much more interest in sustainable products than other generations. When asked if they make a decision based on an understanding of how it will affect the world, its environment, and its people, 55% of millennials say they agree with that sentiment. That’s compared to 40% of generation X, 34% of baby boomers, and 28% of mature consumers who would say the same.

Molyneaux compared the sustainability enthusiasm among millennials to the way baby boomers rallied around the concept of organic before them.

“Now you have millennials who are saying ‘Tell me more, tell me how things are made from the ground up. I want to know more about you and I want to be able to trust you more,’” said Molyneaux. She advised that sustainability will continue to be a key priority of these consumers for the foreseeable future.

Health Priorities
Setting aside their many differences with older consumers, millennials do actually have something in common with other generations. Like other age groups, millennials are concerned about certain health areas, chief among them being brain health, heart health, weight loss, and lack of energy/fatigue.

But they may not be acting on those concerns. For instance, 73% of millennials say they are concerned “a lot/a little” about heart health, while only 23% are currently managing or treating those symptoms. Nonetheless, Molyneaux said she was actually struck by how many millennials are acting on their health concerns.

“I was really amazed at that number [of 23%],” said Molyneaux. “We continue to see heart health as a big opportunity, even with millennials, that there’s an interest in preventing. The interest is high, and the need is relatively high for this sized group.”

What’s more, it may make the work easier on marketers knowing that this younger generation actually shares many of the same health concerns of other consumers.

“The top concerns of millennials are really no different from those that you’d find in older generations,” said Dolan. “You don’t necessarily have to build a whole new campaign for them. You might want to maybe tweak the messaging slightly to appeal to this younger generation.”

Dolan advised that educating millennials about the importance of a diet with a preventive health focus in mind, rather than just taking supplements when they get sick, could also be crucial to building the consumer base.

Consumers for Life
It may seem daunting to consider all the differences in the millennial market, but doing so also has the potential for long-term rewards. If nutraceutical companies are able to incorporate these many priorities and earn the loyalty of millennial consumers, they may be able to keep these consumers on board for many years to come.

“As they start to really believe in it, it’s something that they will do over the long term,” said Dolan. “And since they are such a young generation, you have an opportunity to pull them all the way through their life.”
Over the last decade, sustainability has grown from a fledgling consumer preference to an overwhelming priority among global consumers. Whether it’s out of concern for environmental consequences or social impact, 66% of global consumers now say they are willing to pay more for sustainable goods, according to the 2015 Nielsen Global Corporate Sustainability Report.

Considering that 55% of global consumers responded the same in 2014 (and 50% in 2013), it’s striking how quickly sustainability is becoming a priority among consumers from all over the world (the survey polled more than 30,000 consumers in 60 countries).

“Sustainability is a worldwide concern that continues to gain momentum—especially in countries where growing populations are putting additional stress on the environment,” says Grace Farraj, senior vice president, public development and sustainability, Nielsen. “An increasing number of consumers in developed regions consider sustainability actions more of an imperative than a value-add.”

The preference for sustainability is also evident in product sales. In the past year, sales from brands with a demonstrated commitment to sustainability grew more than 4% globally, compared to just 1% global growth from brands without a similar commitment, says Nielsen. Has the time arrived when sustainable appeal is now a requirement for business success?

“Consumer brands that haven’t embraced sustainability are at risk on many fronts,” says Carol Gstalder, senior vice president, reputation and public relations solutions, Nielsen. “Social responsibility is a critical part of proactive reputation management. And companies with strong reputations outperform others when it comes to attracting top talent, investors, community partners, and importantly, consumers.”

In terms of producing foods and dietary supplements with sustainability in mind, many ingredient suppliers have begun taking a closer look at where their ingredients come from. But what about where those ingredients end up—and the materials that are discarded by-product?

Some ingredient companies are now tapping into the trend of “repurposed ingredients,” or “second-generation ingredients,” to create new ingredients from materials typically thrown away in the past. Aside
from enhancing a company’s sustainability profile, repurposed ingredients can also be a lucrative and convenient way to make the most of materials already on hand.

**Second-Generation Plant Powders**

BI Nutraceuticals (Long Beach, CA) has rolled out several ingredients made from raw materials that were previously being discarded, including its sugar cane fiber powder, carrot fiber powder, and asparagus stem powder.

The sugar cane powder is made from leftover sugar cane after cane juice has been removed for sugar production. The carrot fiber powder is made from leftover pumice from carrot juice production. And the asparagus stem powder is made from the thick part of the stem normally discarded from fresh asparagus production, according to Alison Raban, certified food scientist, BI. She says the powders are easily incorporated into supplements, beverages, baked goods, and snack foods.

"With the increased consumer demand for environmentally friendly, sustainable ingredients, customers are using these ingredients as a marketing tool," says Raban. "In particular, carrot fiber and sugar cane fiber are being utilized as clean-label, natural sources of fiber."

Aside from BI’s customers asking for eco-friendly ingredients, the company was inspired to repurpose these raw materials upon realizing that viable, nutritious plant parts were going to waste during the course of its vendor audits. Additionally, Raban explains, the concept of repurposing the by-products of food processing has become much more popular in recent years.

“There used to be a stigma around repurposed ingredients because they were considered ‘food waste,’” says Raban. “However, as the definition of food waste changed from valueless by-products to nutritious by-products not being utilized, the stigma faded.”

Raban says using second-generation ingredients has also been a profitable strategy for the company, but not because the ingredients are cheaper to produce. Although the raw materials themselves are cheaper to acquire since they were just being discarded in the past, the production process is still expensive due to the high fiber content of the ingredients.

BI had to develop a unique process to maximize the fiber content of the ingredients and construct a special “low-humidity
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cool-down and packing room” to ensure the naturally hygroscopic fibers meet the low moisture content customers demand. Fortunately, the sustainable appeal of the repurposed powders has made up for the production costs, the company says.

“Repurposing ingredients is a profitable strategy in the sense that they are sought-after ingredients,” says Raban.

BI’s sugar cane fiber and asparagus stem powders just launched last year, while the carrot fiber powder has been available for more than two years, according to Raban.

**A Prebiotic from Xylitol Production**

Xylitol, a natural sweetener derived from corn, has risen in popularity as a low-calorie alternative to table sugar. But AIDP (City of Industry, CA) recently found that a by-product of xylitol production can also be a nutritious and popular ingredient.

PrecticX, a new prebiotic from AIDP, is made from the corncobs left over after xylitol production. The company says it has already seen a “tremendous response” from customers since launching the ingredient at the 2015 Natural Products Expo West trade show, thanks in large part to the growing market for digestive-health products.

“The primary messaging has been around the science and health benefits,” says Kathy Lund, vice president of business development and marketing, AIDP. “The sustainability aspect is also promoted to customers, which is a growing interest. Having a repurposing message is an additional benefit to a strong ingredient like PrecticX.”

Before PrecticX, the corncobs were just being burned and placed back into the soil for nutritive value, says Lund. Instead, AIDP now produces the prebiotic from the corncobs via a proprietary procedure involving enzymatic hydrolysis.

One of the biggest strengths of PrecticX, a xylooligosaccharide, may be that it requires a relatively small dosage to be effective. AIDP says that compared to other prebiotics, such as fructooligosaccharides or galactooligosaccharides, xylooligosaccharides have the lowest minimum effective dosage. This can translate to more competitive prices and reduced gastrointestinal side effects versus other prebiotics, according to AIDP.

A study published last year found that compared to a placebo, PrecticX supplementation significantly increased *Bifidobacterium* counts in the gut microbiota of healthy adult subjects.

**Bonicel from Ganeden BC30**

For several years, Ganeden Biotech (Cleveland) has offered an ingredient derived from the by-product of an established ingredient. Ganeden’s Bonicel is a skin-care ingredient made from a metabolic by-product that is left over from production of the company’s Ganeden BC30 probiotic strain.

During normal production of Ganeden BC30, a supernatant is created during the bacterial fermentation process, explains Michael Bush, senior vice president, Ganeden. Ganeden uses that supernatant to create Bonicel, which has been studied to show improvements in skin pore size, redness, moisturization, elasticity, the appearance of wrinkles, and more, says Bush.

Yet, even though the supernatant is a by-product of Ganeden BC30 production, Ganeden uses separate production processes to create Bonicel and Ganeden BC30.

“When we make Ganeden BC30 for oral consumption, we utilize a method that maximizes the growth of spores and not the by-products in the supernatant,” says Bush. “When we make Bonicel for topical use, we are producing it from Ganeden BC30, but utilize a method that maximizes the by-products in the supernatant instead of the spores.”

Because there are two separate production processes, Bonicel is not strictly a repurposed waste product, but Bush says the ingredient’s second-generation status still carries a sustainable message.

“When marketing Bonicel, we do discuss the sustainability factor and that it is derived from another ingredient,” says Michael Bush, senior vice president, Ganeden. He adds that interest in sustainability is growing, but Ganeden’s customers remain most interested in the science behind its ingredients.

Bonicel first launched in 2012. More recently, it was included as an ingredient in the Prevaleaf Probiotic Boost Soothing Cream, which launched a few months ago.

**Avocado Seeds**

Avocados are one of the most well-known fruits, but Ecuadorian Rainforest (Belleville, NJ) recently discovered that the overlooked avocado seed can also be an ingredient in its own right. The company began selling its avocado pit powder earlier this year after taking a second look at the large seed inside avocados that most people simply discard.

“We wanted to know if we were throwing away a useful part of the fruit,” says Steve Siegel, vice president, Ecuadorian Rainforest. “It turns out avocado seeds are rich in nutrients indeed. The seed may contain up to 70% of the total antioxidants found in avocados, making it a valuable ingredient.”

The avocado seed is also a good source of potassium and soluble fiber, according to Ecuadorian Rainforest. Siegel says customer
response has been positive in the short time the company has been offering the seed as a standalone ingredient.

"Consumers have been intrigued by the avocado seed's benefits and many were surprised to learn of its potential benefits," says Siegel. "Manufacturers looking for the benefits of avocado fruit and seed are now looking for ways to incorporate both ingredients into their products."

Aside from use in functional foods and beverages, the avocado pit powder also works as an exfoliant, says Siegel. "Cosmeceutical manufacturers who create body scrubs, facial cleansers, and other natural beauty products may benefit from using avocado seed as an ingredient," he explains.

Acid Whey

Acid whey, an ingredient left over from the production of Greek yogurt, cottage cheese, and cream cheese, was long considered a waste by-product of the dairy industry. But two years ago, Arla Foods Ingredients (Viby J, Denmark) found a way to make better use of the ingredient.

Arla uses a unique process of combining acid whey with its milk-based Nutrilac protein to convert the acid into other dairy products, including fermented beverages, syrups, yogurts, dips, cream cheeses, and processed cheeses.

In the past, acid whey was simply thrown away or used in animal feed, according to Nikolaj Neddebo Knudsen, account manager, functional milk proteins, Arla. However, with Arla's process of repurposing the ingredient, he says it's now possible to save all of the acid whey.

As with other repurposed ingredients, it can be a challenge finding the right marketing message for acid whey. Ironically, some consumers may carry a negative perception of acid whey due to negative media coverage of the ingredient as harmful to the environment when discarded, says Knudsen. He suggests that further consumer education may help remedy this, but companies using Arla's acid whey technology can also promote a simpler message about sustainability.

"You also can state that you have 100% usage—that you don't have any waste," says Anne Poulsen, business development manager, health and performance nutrition, Arla. "I think that really resonates well with the consumer."

Arla earned an IFT Food Expo Innovation Award in 2014 for its acid whey technology.

The List Keeps Growing

In addition to the ingredients mentioned above, Nutritional Outlook's recent story on joint health features two other noteworthy inclusions: eggshell membranes and apple peels.

NEM eggshell membranes from ESM Technologies (Carthage, MO) may be best known as a joint-health ingredient, but the ingredient is also a second-generation by-product from the egg products industry. The company sources its eggshells from facilities that produce liquid egg ingredients for a variety of food applications, including bakeries and ice cream production. If the eggshells were not being used for the NEM membranes, they would be spread on fields as fertilizer or discarded in a landfill, where they can cause a harmful nitrogen buildup in the soil, according to ESM.

Another repurposed joint-health ingredient, AppleActiv, is an organic dried apple peel powder made from apple by-product left over from applesauce production. The apple peels were being composted until supplier Leahy Orchards Inc. (Franklin, QC, Canada) began using them to make AppleActiv.

To learn more about these two ingredients, see the full story on joint health at NutritionalOutlook.com/jointhealth/1511

Between opening new revenue streams and enhancing an ingredient’s sustainable appeal, using second-generation ingredients can help an ingredient company go the extra mile with its existing ingredients.

References

The supplements industry is surviving—even thriving—in a difficult year.

BY MAUREEN KINGSLEY

As 2015 winds down and a new calendar year is set to begin, the nutrition-supplements industry can take heart that, despite some very public challenges, sales are up, around 2.5%–3%, from 2014. Data collected from both SPINS and Euromonitor International data-analysis firms support this assertion, indicating that negative media attention directed at the supplements market this year has had minimal, if any, lasting impact on total industry growth so far.

Chris Schmidt, senior analyst, consumer health, Euromonitor International, says that, in general, the "total vitamin and supplement category performed pretty well in 2015, growing 3% in constant terms. In the United States it’s a pretty mature category," he adds, so "when you examine the entire category, you’re not going to see explosive growth rates, because the industry is so large and well-established. " What you will see, he says, is what he calls "underlying demand growth."

The current underlying demand growth of the supplements market is respectable. Schmidt explains. "It is still pretty strong, especially for a mature market."

The current underlying demand growth of the supplements market is respectable. Schmidt explains. "It is still pretty strong, especially for a mature market."

Still Growth...Despite Negative Media and Government Attention

It’s no secret that industry was the subject of greater scrutiny than usual in 2015, particularly from New York Attorney General Eric Schneiderman beginning early in the year, then broadening to include a coalition of state attorneys general that included Connecticut’s George Jepsen, Indiana’s Greg Zoeller, secretary of Puerto Rico’s Department of Consumer Affairs Nery Adames Soto, and, later, Oregon’s attorney general Ellen Rosenblum. These public figures appeared to be crusading for efforts to "eliminate misleading and deceptive labeling for the benefit of consumers," as Indiana’s Zoeller put it in a press release, with a particular focus on herbal supplements sold at well-known retail outlets GNC, Target, Walmart, and Walgreens.

GNC later reached an agreement with Schneiderman regarding its Herbal Plus products; however, in late October GNC Holdings Inc.’s stock dropped 21% and the bad press continued after Oregon’s state attorney general, Ellen Rosenblum, pronounced that some supplements sold by GNC contained the substances picamilon, described by Rosenblum as a Russian prescription neurological drug, and BMPEA, an amphetamine-like substance, according to Rosenblum. The state of Oregon has filed a lawsuit against GNC over this matter. For its part, GNC issued a statement saying that “the claims made by the Oregon Attorney General are without merit and GNC intends to vigorously defend against these allegations.”

Compounding the bad PR, one month prior to Rosenblum’s filing the lawsuit, New York AG Schneiderman issued cease-and-desist letters instructing 13 dietary supplement manufacturers (including NOW Foods and other established industry names) to stop selling, distributing, and marketing “adulterated or misbranded” devil’s claw supplements. The letters cited a study performed by the New York Botanical Garden that used a DNA-barcoding technique to conclude that the devil’s claw supplements from these manufacturers contained a cheaper related species that is considered “less desirable,” according to Schneiderman’s office. (The American Botanical Council promptly re fused the “less desirable” interpretation, as well as the other conclusions reached by Schneiderman’s office, in a press release.)

The AG asked the manufacturers who received the letters to recall any “adulterated” devil’s claw supplements, compensate consumers who purchased the mislabeled
products, and reform their quality-control measures.

Finally, unrelated but also in October, a study was published online in *The New England Journal of Medicine* concluding that dietary supplements send at least 23,000 Americans per year to hospital emergency rooms and cause at least 2,000 to be hospitalized. The report has motivated some health and consumer advocates to again call for heavier FDA regulation of supplements.

So, with dietary supplements under attack, so to speak, in a very public way, how is it that industry has still grown 2%–3% over the course of the same year?

“Negative media stories can have fairly meaningful impacts,” says Euromonitor’s Schmidt, “but those tend to be fairly short-lived. Consumers don’t have really strong long-term memory in terms of any sort of press affecting their consumer purchasing. As soon as a negative story comes out, it’s refuted with positive coverage from the industry or a physicians’ group, etc. We don’t see long-term magnitudinal changes from negative coverage, but it can hit an individual category, like the fish oil category.”

Non-Herbal Supplements Led the Way in 2015

Products in the non-herbal/traditional vitamins and supplements category appear to be largely responsible for driving sales growth and keeping the entire supplements industry humming in 2015, according to Euromonitor’s Schmidt. He points to eye-health supplements, proteins, and probiotics as being notable performers, as well as fish oils, which are making a solid recovery from their 2013 decline.

Eye-Health Supplements

Eye-health supplements have seen consistent growth since 2010, Schmidt explains. Combination antioxidant products based on the formulas used in the National Institutes of Health’s Age-Related Eye Disease Study (AREDS and AREDS2), and standalone ingredients like lutein, “have done well,” he says.

Protein

Protein supplements, mainly in powder form but increasingly in new ready-to-drink formulations, continued to do very well overall in 2015. Kimberly Kawa, natural products specialist, SPINS, calls plant-based and animal-based proteins—especially the multi-sourced formulations—“the best performers based on both sales volume and percent growth.” Her data show, for instance, that multi-sourced animal-based proteins saw U.S. sales of $368 million in 2015 (in the channels for which SPINS collects data), up about 20% from the prior 52-week period. Protein products formulated with a combination of both animal- and plant-based proteins led the whole protein category in dollars with U.S. sales of $1.4 billion, up just a bit—a little under 1%—from the previous year.

Likewise, Euromonitor’s Schmidt concurs that protein supplements continued to grow “really strongly” in 2015. He points specifically to non-sports–positioned products, such as Vega, and the more generic proteins marketed for general wellness or for promoting energy throughout the day.

Probiotics

Euromonitor puts the size of the U.S. probiotics-supplements market, listed as retail-sales price (RSP), as $1.7 billion in 2015. SPINS reports 15% growth in sales of probiotics from 2014 to 2015 in all combined U.S. retail sales channels for which the firm collects data (natural supermarkets [excluding Whole Foods], specialty supermarkets, conventional multi-outlet [includes Walmart]). Both SPINS and Euromonitor agree that growth of the probiotics market has been strong for a few years, despite the category’s maturation, particularly in the mass market, notes Schmidt. He adds that probiotics have “always been pretty strong in the specialty and health-food channels, but a lot of the category’s recent growth was related to promotion from brands like Align and Phillips’ Colon Health that were really targeting the average-Joe mass consumer.”

Fish Oil

Interestingly, fish-oil products are “growing pretty strongly,” says Schmidt. This is a category that is, of course, in recovery after growth dropped off pretty sharply in 2013 because of negative press coverage. “Fish oils were growing 10% a year until 2013, when they dropped significantly, to about 3%, then growth climbed back up to about 5% or 6%,” Schmidt says. He credits GOED and what he calls its “holistic consumer education” campaign for “pushing the category up” after the 2013 decline. GOED Executive Director Adam Ismail explains the group’s efforts this way: “We have found that providing small amounts of positive reinforcement through educational campaigns like this one can have a significant impact. Our campaign focused on getting reinforcing messages in front of the consumer via television, Internet search, digital ads, social media, and public relations. Ideally, we would continue this campaign throughout the year, or in multiple waves to sustain this effect.”

Ismail agrees with Schmidt that growth in fish oils is generally good but varies by sales channel. Schmidt’s figures are “representative of what we are seeing in the natural foods, practitioner, and direct-to-consumer channels,” he confirms, “but the food, drug, and mass channels are still down slightly.”

Vitamins D, C, and B12

Beyond eye-health supplements, proteins, probiotics, and fish oils, sales of non-herbal vitamins and supplements also showetter vitamins D, C, and B12 as doing particularly well, with sales of each from all combined channels studied by SPINS (again, natural
supermarkets [excluding Whole Foods], specialty supermarkets, conventional multi-outlet [includes Walmart] growing more than 10% from the 52-week period ending on September 7 of this year. Vitamin D’s sales growth was 13%, vitamin C (not including Ester-C) was 11%, and vitamin B12 was 11%.

Herbals/Botanicals Only Slightly Less Robust

The way this category is defined and the products contained therein vary depending on who’s crunching the numbers. But, generally speaking, herbal and botanicals are roughly holding steady, despite the media fallout they experienced this year. Euromonitor puts the total U.S. market size for herbals/traditional dietary supplements in 2015, as listed RSP, at $3.5 billion. SPINS notes a very slight decline in herbal/botanical sales, from all channels for which it collects data, from September 2014 to September of this year: less than 1%. And NOW Foods’ Jim Emme says his company, for one, is seeing growth in botanicals and herbs.

Euromonitor’s Schmidt remarks that “as a total category, herbal/traditional dietary supplements are growing slightly slower than the entire nutritional-supplements industry overall, slightly less than 2% annually from 2010 to 2015” by his firm’s calculations, but he points to “some pretty strong divergence among some of the subcategories.” Some of the products that have been around a long time, such as garlic, are growing very modestly, holding steady, or dropping a little bit year over year. “They are not quite as relevant; there hasn’t been as much innovation there. But then we see categories like fiber, for instance, which has recovered strongly from recalls thanks to new promotion around digestive health and satiety. Also, we are seeing some of the more trendy ingredients popping up a little bit more.”

These trendier, new-to-the-U.S.-consumer herbs and botanicals include ivy leaf and acacia fiber, according to SPINS data.

Herbs and botanicals showing strong sales volume in terms of U.S. dollars for 2015 include horehound, Echinacea, cranberry, flax seed/oil, green teas and supplements, and turmeric, according to SPINS sales data. Whether sales of devil’s claw will be significantly affected by New York AG Schneiderman’s targeting of the herb this summer remains to be seen. The herb is not a cash cow in the United States anyway, and it had already undergone a 14% dip in the 12 months that preceded the attorney general’s actions, according to SPINS data.

Reaching Out, Looking Inward

It is remarkable how well industry has taken a difficult, year-long (and counting) public-relations experience and turned it into an opportunity for self-reflection and consumer education. Trade associations and other industry groups have been quick to respond to the bad press, and as NOW Foods’ Emme puts it, “They’ve all been doing a very good job responding to the educational needs of consumers and trying to set the record straight.”

These groups include the nonprofit, educational American Botanical Council, whose proactive measures included printing a 12-page feature article about the NY attorney general’s laser-focus on herb testing in its HerbalGram publication, as well as a summary of two DNA barcoding-related white papers, an editorial on Schneiderman’s misuse of DNA methods, and a press release responding quickly to the devil’s claw testing and issuance of cease-and-desist letters.

The Council for Responsible Nutrition has been vocal as well, issuing a number of statements, press releases, white papers, and infographics with information regarding DNA testing of herbal supplements, FDA’s oversight of supplements, and industry’s commitment to quality and supply-chain management. In a late-October e-mail message to Nutritional Outlook, Judy Blatman, senior vice president, communications, CRN, stated that the organization “does not think that negative media attention has had much of an impact on the industry, particularly from a sales perspective,” and adds that “consumers may be tuning out the noise.” However, she states that “even though it’s good news that, according to our [most recent consumer] survey, 68% of American adults take supplements and over 80% have confidence in the products, we can’t become complacent. As our industry continues to grow and mature, we need to ensure accountability to consumers through self-regulatory and quality-control initiatives, and to support FDA and FTC when it makes sense on the regulatory front.”

NOW Foods’ Emme echoes Blatman’s sentiments, saying, “We’re always looking for ways to partner with our ingredients suppliers to make sure the supply chain is reliable. We’ve always been vigilant with our supply chain, we will continue to do so, and we’re encouraging others to as well.

“We believe the next big industry trend is going to be more companies making sure they know exactly where their ingredients are coming from. Going out to visit the source, going out to visit the manufacturers if they aren’t in North America. Some companies do this already, but it’s going to be more and more important for us to make sure that our supply chain is reliable and, frankly, meets the standards that we all set.”

He adds, “The best testing methods in the world won’t protect against a bad supply chain.”

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Healthy Interest

2015’s mergers and acquisitions activity in review

BY KIMBERLY J. DECKER

It seems only fitting that an industry dedicated to health and wellness would attract a level of investor interest that’s, well, healthy. And that’s exactly what companies in the nutrition and health-and-wellness sector attracted in 2015. According to the Nutrition Capital Network Transaction Database, 2015’s transaction total closed in on 2014’s before the year had even passed its midpoint.

Grant Ferrier, CEO, principal and cofounder of Nutrition Capital Network (NCN; San Diego), noted the record-setting pace early on. Looking broadly at the nutrition and health-and-wellness industry, he says, “M&A activity is notably up in 2015 compared to the prior two years.” Meanwhile, in 2015’s first two quarters alone, the NCN Database listed 32 investment financings in branded food-and-beverage companies, compared to 33 in 2014’s entirety.

Foodtech’s Time

As the industry enjoys the rosy glow of investor attention, some segments are getting more attention than others. One real “looker” is what NCN calls “foodtech”—that is, computer and mobile technologies that consumers or businesses use to “access and share information or order food, nutrition, and healthy-lifestyle products and services,” Ferrier says. M&A activity is notably up in 2015 compared to the prior two years.” Meanwhile, in 2015’s first two quarters alone, the NCN Database listed 32 investment financings in branded food-and-beverage companies, compared to 33 in 2014’s entirety.

Protein Potential

As far as transactions in the branded natural and organic food-and-beverage sectors went, equity investments and M&As were both up, per NCN’s database, with the prevailing theme of the transactions centering on protein. “Three of the largest deals so far in 2015 are WhiteWave Foods’ purchase of the plant-based protein shake and snack bar company Vega, Hormel Foods’ acquisition of Applegate Farms natural and organic deli meats, and Hershey’s acquisition of Krave, a maker of artisanal, gourmet jerky,” Ferrier notes.

And if such traditional proteins are too pedestrian for you, consider the buzz surrounding “engineered proteins” and meat substitutes. Companies like Beyond Meat and Soylent “continue to raise eyebrows with large capital raises and high valuations,” Ferrier says. Their appeal lies largely in the traction that their environmentally sound meat alternatives have gained with millennials and “new generations of health-minded consumers who want protein for energy and exercise, but not in unsustainable animal forms,” Ferrier says.

Exhibit A: Beyond Meat (Manhattan Beach, CA) aims to replace animal protein with plant-based alternatives like its Beast Burgers made from pea protein, or its “chicken” strips made with soy protein isolate and pea protein. It raised $17 million in a Series E round from existing investor Obvious Ventures, Ferrier notes, with Closed Loop Capital, Kleiner Perkins Caufield & Byers, Bill Gates, and S2G Ventures also pitching in.

Read the full version of this story, including what’s happening in the dietary supplements M&A sector, at NutritionalOutlook.com/trends-business/MandA2015

Kimberly J. Decker writes for the food and nutrition industries from her base in the San Francisco area, where she enjoys eating food as much as she does writing about it.
In many ways, there has never been a better time to launch a new food and beverage brand.

Consumer beliefs about what health means are fragmenting and becoming very individualized—personalized nutrition, in effect. This is producing a massive fragmentation of markets and the proliferation of niches, which entrepreneurial companies are perfectly placed to serve. As a result, more and more, products have narrower targets.

Added to this trend is increased consumer openness to small, new brands, new ingredients, new tastes, and new textures. And it’s not just millennials entertaining new possibilities; people of all ages are becoming “food explorers.” This receptiveness is the reason that snacks based on seaweed are already a $250 million market in the United States and the number of snacks based on chickpeas has doubled in Europe in the last two years.

The Pros
Being a small business gives you several advantages in this fragmenting marketplace:

1. You can make a good business by focusing on the new niches where the volumes are too low to attract big companies. If you start small, you are making the right choice, according to the late Professor Peter Drucker of Harvard Business School, one of the best-known writers on innovation of the 20th century. Drucker is very clear on the importance of aiming at “only a small, limited market.”

2. The new niches are low volume, but they come at higher price points—meaning profitability can be good if your product resonates with the consumer. Many small, new brands begin by targeting “lifestyle” consumers—the 20%–30% of people (depending on which country you are in) who are willing to pay a premium for something that delivers health and wellness benefits. This is a smart move, because most brands that attempt to jump straight into the more price-driven mass market often fail.

3. New brands can, at least in the first few years, use all kinds of alternative distribution channels that are better suited to low-volume products than the traditional supermarket—think convenience stores, cafes, health food stores, gyms, and others.

4. You can go direct-to-consumer using e-commerce. The Hint brand of no-sugar fruit drink earns 25% of its sales...
E-commerce enables you to earn better margins and build better relationships directly with consumers.

5. You can take your time growing the business. Big companies often kill ideas that might have become successes if management had the patience to wait out slow sales growth during the first couple of years. In the United States, Kind nutrition bars are held up as the model of a successful entrepreneurial business—but the brand took 10 years to achieve success. For entrepreneurs, 10 years is a realistic timescale for victory.

The Challenges

On the other hand, the life of the entrepreneur is demanding, takes up all of your time, and comes with some very distinct risks:

1. You must keep very close to changing shopper behaviors and beliefs. Pop Chips snacks started in 2007 with a focus on low-fat “popped” chips. But in 2015, being “popped” is no longer a point of difference, and “low fat” interests fewer and fewer consumers. Pop Chips has seen its sales stagnate at a level far below the targets its founders once set.

2. Your new brand has no established credibility, and you will need to be willing to build it patiently and slowly, by means such as investing in targeted PR and sampling (the two most effective marketing techniques for small companies). Sampling is particularly important—many people want reassurance that an unknown brand tastes good before they risk buying it.

3. You will find it difficult-to-impossible to grow if you rely on cash flow from your own sales. Sooner than you think, you will need investment to enable you to secure new distribution, to create new products to keep consumers interested, to market your product, and to grow your business. Unless you have $100,000 of your own to risk, then you will need to find an investor who is compatible with you and believes in your plan.

The Future

Although the prospects for healthy food and beverage startups are better than in the past, those prospects are hyped. The failure rate of small, new businesses still stands at 80% and higher. Entrepreneurs can expect many bumps and catastrophes along the road into the unknown. More than branding, marketing, ingredients, or great package design, your personal resilience will be the biggest driver of your success.

Julian Mellentin is one of the world’s few international specialists in the business of food, nutrition, and health. He is director of New Nutrition Business, which provides case studies and analysis of success and failure in the global nutrition business and is used by more than 1,700 corporate subscribers in 42 countries. Visit our website www.new-nutrition.com for more information. For all of our latest updates, follow us on Twitter @NewNutritionB and LinkedIn.
Researchers from the newly formed Antarctic Wildlife Research Fund embark on krill-based research initiatives that will further strengthen sustainable management of the fishery and the omega-3 ingredients industry as a whole.

BY BECKY WRIGHT, MARKETING DIRECTOR, AKER BIOMARINE ANTARCTIC US

Earlier this year, scientists, NGOs, and krill oil supplier Aker BioMarine (Oslo, Norway) established The Antarctic Wildlife Research Fund (AWR) to obtain more scientific information on the Antarctic ecosystem. The AWR works with both commercial supporters, including dietary supplement firms, and individuals to raise donations for funding research on Antarctic ecosystem and wildlife. The Antarctic Wildlife Research Fund is supported by: BioMar Group, Blackmores, Dr. Mercola, Ridley Corp., and Swisse Wellness. The fund recently secured its first round of grants, marking an important moment and the culmination of an enormous amount of effort by the AWR.

AWR issued its first call for proposals in March 2015, inviting applications from scientists working on priority research areas. AWR used a multistep process to ensure that the best proposals were chosen, based on scientific advice from an independent Science Advisory Group, comprised of eight of the world’s leading Antarctic scientists.

In August, three recipients were awarded the Fund’s first-ever research grants. Scientists from five different countries will study whales, penguins, and krill, addressing knowledge gaps regarding krill and its dependent predators.

Dr. Phil Trathan, chair of the AWR Science Advisory Group, believes the AWR is an example for other industries to follow in terms of sustainable management. “I am particularly pleased to see the launch of this research fund as I believe it shows a real commitment from the fishing industry to engage in sustainable
practices that are built upon the solid foundation of scientific evidence,” he said in an earlier press release. “Not only will this fund help build a sound basis for management, but it will hopefully also help foster closer collaboration between scientists from many different nations.”

**Grant #1**

Adelie, Chinstrap, and Gentoo penguins rely on predictable aggregations of krill in order to successfully raise and fledge chicks during their austral-summer breeding seasons. Dr. Andrew Lowther and his colleagues from Norwegian Polar Institute and British Antarctic Survey will explore how non-breeders can potentially exploit a much wider range of habitat types and locations. The scientists will aim to address the knowledge gap on adult, non-breeding, and therefore more mobile, birds in a region where most of the krill fishing in the Southern Ocean takes place.

**Grant #2**

Dr. Christian Reiss (NOAA Fisheries) and his colleagues at the University of New Brunswick and Australian Antarctic Division will explore a new, direct aging methodology for Antarctic krill based on previously developed technology that looks for annual growth bands in the krill’s eyestalk. Reiss et al. will conduct studies to validate this technique, comparing the eyestalk of krill to other crustaceans like shrimp and crab. An understanding of the variability in population structure (growth, recruitment, and size at age) is necessary for developing spatial management frameworks for the krill fishery.

**Grant #3**

Dr. Ari Friedlander at Oregon State University and his colleagues at Duke University will conduct a long-term ecological study on the foraging behavior of humpback whales around the Antarctic Peninsula. The goal is to determine how critical foraging areas relate to historic catches of krill in the region. By deploying satellite-linked time depth recording tags on whales throughout the Antarctic feeding season, the scientists aim to quantify if, when, where, and to what extent commercial fishing and humpback whale feeding co-occur. This information is critical for managing both the amount and location of fishing, while also providing useful information on the biology and ecology of these top predators in a changing environment.

For the future, Dr. Rodolfo Werner, scientific advisor to the AWR, said, “These projects are crucial to our understanding of the Antarctic marine ecosystem, helping us to improve our knowledge on the interactions between krill and its predators. Only through better understanding of the role of Antarctic krill in the Southern Ocean can we comprehensively protect the animals that depend on it for survival and ensure precautionary management of the fishery.”

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Clinical Trial Highlights
A look back at some of the year’s most impactful research on dietary supplement ingredients

BY KIMBERLY J. DECKER

Clinical trials have been a touchy subject in the health and wellness industry. It’s not that supplement and functional-food manufacturers oppose rigorous inquiries into the details of their products’ efficacy; it’s just that, for a while there, the U.S. FTC was interpreting the “competent and reliable scientific evidence” standard that it requires of manufacturers to substantiate a structure-function claim to mean “at least two adequate and well-controlled human clinical studies.” (See page 16 for more.)

While the FTC appears to have dialed back somewhat on this interpretation, it’s understandable that it initially set industry back on its heels. After all, as any researcher will attest to, even one well-controlled human clinical study—to say nothing of two—is incredibly complex, time-intensive, not to mention expensive to do. Such randomized controlled trials (RCTs) take a long time and a large number of participants to carry out. And they aren’t even always appropriate—or necessary—for answering the questions or establishing the knowledge that researchers or industry seeks.

But there’s a reason the National Institutes of Health (NIH), the FDA, and other august bodies deem RCTs the gold standard of clinical research—several reasons, in fact. Some (not all) consider such large-scale, randomized, controlled human studies indispensable for revealing consistent, unbiased information about a supplement’s effects, allowing us better to determine appropriate dosing, understand a mechanism of action, and elucidate benefits. And, for those who require them, RCTs burnish the legitimacy of an industry that often finds itself on the defensive.

But perhaps most importantly, RCTs have the potential to improve lives. “This is the type of research that needs to get into the hands of doctors, so they can make use of it in their practice,” says Harry B. Rice, PhD, vice president of regulatory and scientific affairs, GOED (Global Organization for EPA and DHA Omega-3s; Salt Lake City). “Solid proof can only be obtained by conducting well-designed clinical trials.” Rice and others share their candidates for some of the most notable human clinical trials of the year.

Herbal Evidence
Consumers have long turned to botanical preparations to prevent or alleviate flu symptoms, but the clinical evidence supporting such preparations’ efficacy hasn’t always been ironclad. A randomized, double-blind, placebo-controlled clinical trial comparing the effects of a product containing Echinacea (Echinacea purpurea) herb and root extract plus European elderberry (Sambucus nigra) juice or extract against the common prescription flu treatment oseltamivir (Tamiflu) adds one more mark to the pro-botanical column. The results of the trial—involving 473 patients spread across 29 medical practices in the Czech Republic—showed the herbal extract (Echinaforce Hotdrink; A. Vogel Bioforce AG, Roggwil, Switzerland) to be effectively equal to the prescription treatment in its therapeutic effects, with a similar number of participants in both the botanical and prescription groups exhibiting mild or no symptoms after one, five, and 10 days of treatment.

Mark Blumenthal, founder and executive director of the American Botanical Council and editor-in-chief of HerbalGram & Herb-Clip (Austin, TX), lauded the study as “one of the largest clinical trials ever published on an herbal preparation and clearly one of the two or three largest of which I’m aware on Echinacea.” As such, he said, “This is yet another significant human clinical trial that helps to document the clinical benefits of this specific Swiss Echinacea extract.”

Vitamin K2 MK7
More people die each year from cardiovascular diseases (CVD) than from any other cause of death, according to the World Health Organization (WHO). And the relationship linking CVD, diet, and circulating triglycerides and cholesterol levels is almost common knowledge among health-aware consumers and the medical and scientific communities alike. But the role of vascular health in the onset and development of CVD hasn’t been as well known, until now.

One study, published earlier this year in Thrombosis and Haemostasis, is helping to raise vascular health’s profile, as well as that of a form of vitamin K2 particularly suited to promoting it. The three-year study involved 244 healthy postmenopausal women aged 55–65 who took 180 mcg of a menaquinone-7 form of vitamin K2 (MenaQ7) or placebo daily. Using pulse-wave velocity and
ultrasound—measurements that indicate the blood’s ability to flow through the vessels—researchers determined that the vitamin K2 inhibited age-related arterial stiffening and improved vascular elasticity to a statistically significant degree.

While earlier population-based studies revealed an association between vitamin K2 consumption and cardiovascular risk, “this is the first study showing that long-term use of vitamin K2 in the form of MK-7 beneficially affects cardiovascular health,” noted Cees Vermeer, the study team leader and a researcher at Maastricht University in the Netherlands, in a press release.

Easy to Stomach
Stomach distress can seem like an inevitability in a modern era of plentiful stressors and even more plentiful occasions to eat (often not very well). No surprise, then, that use of proton-pump inhibitors (PPIs)—drugs that reduce gastric-acid production—has grown. But PPIs have appeared in some studies to encourage small-intestine bacterial overgrowth (SIBO) that leads to diarrhea, abdominal pain, and bloating. A randomized, double-blind, placebo-controlled trial recently looked at the role of probiotic bacteria in ameliorating those symptoms.

One hundred subjects with gastroesophageal reflux disease (GERD)—56 men and 44 women ranging in age from 18 to 70—were treated with the PPI pantoprazole for six months and then randomized to receive either two daily doses of the probiotic Lactobacillus paracasei F19 (LP-F19) three days per week for six months, a similarly administered placebo, LP-F19 for the first three months followed by the placebo, or the placebo for the first three months and LP-F19 thereafter. The results of the multicenter trial “suggest that concomitant use of probiotics—most likely Lactobacilli strains—may reduce bowel symptoms such as bloating and flatulence but not abdominal pain in patients taking PPIs long-term,” says Donald J Brown, ND, managing director, Natural Product Research Consultants (Seattle).

Additionally, Brown finds it “interesting” that the probiotic was only administered twice daily for three days per week during the study. “It will be interesting in future clinical trials looking at probiotics for prevention of gastrointestinal symptoms to consider not only probiotic potency,” he says, “but also frequency of administration. Finally, clinicians should be asking if the rampant use of PPIs and subsequent SIBO might be one of the primary contributors to the rise in functional bowel disorders such as IBS.”

Transformative Transport
The long-chain omega-3 fatty acid docosahexaenoic acid (DHA) has a reputation as a brain-health powerhouse—a logical conclusion, given its importance as a constituent of brain phospholipids. But the brain can’t synthesize DHA from scratch, which suggests that our bodies need to shuttle the fatty acid across the blood-brain barrier. Just how that happens has been something of a mystery until recently, when several studies identified the protein MFSD2A as the major transporter for DHA uptake into the brain.

The first study in 2014 used a mouse model to establish the protein’s role. But two subsequent studies published in 2015 involved human subjects and significantly moved the ball forward in explaining how DHA makes its way into cerebral tissue and what happens when that transport is stymied. “This is a huge discovery,” says GOED’s Rice, “and one that received...”
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*Synergy protein research has been in collaboration with its parent company, Carbery, a leading manufacturer of whey protein.
minimal attention from the media,” despite its far-reaching implications.

“For example,” Rice says, “in a condition like Alzheimer’s disease, where DHA decreases in the brain as the disease progresses, would it be possible to modify the transporter to increase DHA accumulation, which in turn may slow down or even reverse progression?” Future clinical trials may reveal the answer.

All in Your Head

Scientists know that omega-3 and omega-6 fatty acids are chemical precursors to endocannabinoids, eicosanoid compounds similar to the active component in marijuana. As such, the fatty acids have demonstrated pain- and anxiety-fighting, as well as neurogenic, properties in previous studies.

A team of researchers including Christopher E. Ramsden, MD, a clinical investigator at the National Institute on Alcohol Abuse and Alcoholism, at the National Institutes of Health, has on multiple occasions looked at how manipulation of dietary omega-3 and omega-6 fatty acids influences headache pain. They examined in a recent trial whether a high-omega-3/low-omega-6 (H3-L6) intervention altered actual plasma levels of omega-3 and omega-6-derived endocannabinoids and, further, whether these changes yielded clinical improvements. The results: among the study’s 55 participants, the dietary intervention increased levels of omega-3 derivatives while reducing those of omega-6, with the changes in omega-3 derivatives—but not omega-6 derivatives—correlating with reductions in physical pain and psychological distress.

According to GOED’s Rice, “The number of people who’ve told me that they modified their omega-3 and omega-6 intake and no longer suffer any or as many debilitating headaches is staggering. Obviously, for some, this may be nothing more than a placebo effect, but the results of Dr. Ramsden’s research are compelling without the anecdotal evidence.”

Kimberly J. Decker writes for the food and nutrition industries from her base in the San Francisco area, where she enjoys eating food as much as she does writing about it.

References
Where Are They Now?

An update on three of the original blockbuster superfruits

BY MAUREEN KINGSLEY

So-called “superfruits” (plants with exceptional perceived health and disease-fighting benefits) seem to show up in the popular U.S. media fast and furiously, gaining sudden attention from such health-conscious celebrities as Mehmet Oz and Oprah Winfrey, inspiring scores of new products from functional food and nutritional supplement manufacturers, and, sometimes, attracting controversy and government warnings for their heavy marketing.

Three such superfruits—açai berry, goji berry, and pomegranate—burst onto the health food marketing scene with much fanfare in the very early 2000s, only to be unseated in the media headlines by newer (to U.S. consumers), more-exotic–seeming superfruits just a few years later.

For a moment, let’s turn our attention back to these three original blockbuster superfruits and ask, “Where are they now?”

Açai Berry

Açai berry, grape-like in appearance and harvested from South American açai palm trees, initially took the American public by storm, but then suffered some bad press from fraudulent weight-loss claims and conflicting public opinion on the multilevel-marketed açai beverage Monavie. (Additionally, the U.S. Library of Medicine states that drinking raw açai juice has been linked to outbreaks of American Trypanosomiasis, also known as Chagas Disease.1) Nevertheless, açai berry as a functional food and beverage ingredient sold through all combined channels, including conventional grocery stores and health food stores, is currently worth $119 million, according to data provided by market researcher SPINS (Schaumburg, IL). That’s three times as much as pomegranate, for instance, and 40 times more than mangosteen.

Despite that big number, which far surpasses sales of other superfruits, açai berry sales increased only a fraction of a percent during the last 12 months in the natural channel, decreased by a significant 22% in the specialty/gourmet channel, and decreased by 2% in the multi-outlet (conventional grocery) channel, according to SPINS.

Açai berries have, in recent years, been marketed for arthritis support, weight loss, high-cholesterol support, erectile-dysfunction support, improved skin appearance, “detoxification,” and general health; however, research on the berries remains limited, and claims about the health benefits of açai have not been fully substantiated.

Goji Berry

Native to Asia, the goji berry is a bright orangish-red berry that grows on a common shrub. In China, goji berries have been eaten and consumed as medicine for hundreds, even thousands, of years, while in the United States, goji berry was virtually unknown (except to the Chinese-American population) until about 2005.

Açai berry still commands a respectable lead, but it did see some market challenges in 2015.
The goji berry is a top seller, with a U.S. market valued at $31 million, according to SPINS.

The current goji berry market in the United States is valued at $31 million from all combined sales channels, according to data compiled by SPINS. This number is a fraction of açaí’s current market value, but it is still enough to rank goji berry among the top-selling superfruits. Sales of the berry from all channels combined did take a modest dive of 1% from mid-June of 2014 through mid-July 2015.

A review of the scientific literature available for goji berry is published in the book *Herbal Medicine: Biomolecular and Clinical Aspects* and describes goji as having a “remarkable history and a positive image in Chinese medicine and culture.”

“Modern science indicates,” the authors state, that goji’s benefits, “long known to the Chinese, are indeed the result of the presence and combination of several biologically active molecules.” A few studies suggest a possible positive effect of goji berry consumption on eye health, neurodegenerative-disease prevention, sexual function, cardiovascular function, and aging. However, SPINS’s market researcher Kimberly Kawa describes the goji berry as “open to debate” as a superfruit because of its status as a nightshade plant. Nightshades are believed by some naturopaths and other alternative-medicine practitioners to produce undesirable symptoms in some individuals.

### Pomegranate

The pomegranate fruit grows on deciduous shrubs or small trees, which were originally native to the region of modern-day Iran. Its arils are typically eaten intact or crushed for juice. About 10 to 12 years ago, pomegranate juices and extracts experienced sudden, intense popularity in the United States, thanks in large part to the health-related marketing efforts of the company Pom Wonderful, founded in 2002 by owners of pomegranate orchards in California. Those efforts backfired a bit in 2010, however, when FDA issued the company a warning letter that contended Pom Wonderful’s pomegranate juices and dietary supplements were being marketed as therapeutics, rather than foods, and that subsequently, the products should be subject to the regulatory approval process for drugs.

Nevertheless, SPINS’s Kawa asserts that pomegranate’s benefits, unlike most other superfruits’ perceived benefits, are “backed up by many human studies,” a compilation of which can be viewed on the website Green Med Info.3 What’s more, well-known and respected botanist James A. Duke, PhD, includes pomegranates in his “Duke’s Dozen,” a list of “disease-fighting foods” published in his book *The Green Pharmacy Guide to Healing Foods,* pointing to both the polyphenols and the phytoestrogens housed within the fruit. He writes that pomegranates “have been shown to be cholesterol and heart-disease fighters in many studies” and refers to the fruit as “a potential cancer fighter.” And while the National Center for Complementary and Integrative Health states on its Pomegranate information Web page that “we don’t have a lot of strong scientific evidence on the effects of pomegranate for people’s health,” the agency does highlight recent human studies showing the potential benefit of pomegranate juice for dialysis patients trying to avoid infections and of pomegranate extract for reducing dental plaque when used as an ingredient in mouthwash. The page also notes that pomegranate may “help improve some signs of heart disease,” but adds that the research is “not definitive.”

Pomegranate sales are currently at $35 million from all sales channels combined, according to SPINS data. That figure represents an 11% decline from the previous 12-month period ending in mid-June of this year.

Pomegranate may be losing some market share to superfruits that seem more novel and exotic to U.S. consumers, such as maqui and baobab; however, pomegranate has more published science on its side than do the “newer” superfruits, earning it a fairly solid reputation as a health food, and it continues to be the subject of ongoing study.

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**Maureen Kingsley** is a freelance writer, editor, and proofreader based in Los Angeles. She covers a variety of industries, including medical technology, food-ingredient manufacturing, and cinematography.

### References


Some Superfruits Are Super Market Performers, Too

Which superfruits had the greatest market share in 2015?

BY MAUREEN KINGSLEY

The term superfruit originated from the minds of clever marketers about 10 years ago and is generally applied by manufacturers to fruits containing high concentrations of phytochemicals and phytonutrients. Many fruits marketed as superfruits are also rich in other ingredients associated with good health, such as fiber and the letter vitamins.

The superfruits market has been ever-present from 2005, with “new” (to North American consumers) superfruits being introduced fairly steadily, and historically popular North American staple fruits being rebranded as “super” based on favorable published studies.

SPINS (Schaumburg, IL) market researcher Kimberly Kawa says the relatively recent superfruits category evolves rapidly and is subject to “industry hype” and endorsements by both celebrities (Oprah Winfrey, Dr. Mehmet Oz) and popular integrative and alternative medicine professionals. Consequently, a given superfruit may spike in popularity one year and crash and burn the next; however, a review of superfruits’ media coverage and commercial availability indicates that once a fruit is labeled “super,” it doesn’t seem to ever vanish completely from the market or from popular media’s memory.

In 2015, the superfruits with the greatest market share, and those displaying the most explosive growth during the previous 12 months, comprise an interesting mix of well-known, native-grown standbys, such as cherries and blueberries; fruits for whom some solid science has been expertly exploited, such as pomegranates; and lesser-known imported fruits, such as baobab, maqui, and golden berry.

The following are a handful of today’s “hottest” superfruits based on current sales data and growth over the past year (provided by SPINS), as well as each fruit’s nutritional highlights and uses in functional foods (e.g., snack bars and functional beverages) and supplements.

Baobab
Sales of the fruit of the African baobab tree increased a remarkable 208% from all natural sales channels, including grocery and specialty/gourmet, from June 2014 to July 2015. “I have noticed the inclusion of baobab in superfruit-positioned fruit chews, supplement powders, and functional beverages,” SPINS’s Kawa says.

Baobab is thriving in the supplements segment as well, increasing a full 267% over launched in September, Baobest’s BaobBites are “flavor-packed, deliciously addictive, bite-size fruit morsels made with only organic baobab fruit powder, real fruit concentrates, and pectin. BaobBites are a fun-to-eat nutritional powerhouse and contain no fat, cholesterol, or preservatives, and are perfect for adding some zing to snacking, baking, trail mixes, mixing into cookies and muffins, sprinkling on oatmeal or cereal, and more. BaobBites Superfruit Snacks have twice the antioxidants of dried blueberries, 3 g of fiber, and are only 128 calories per 40-g serving.”
the past year. Baobab is not yet a household name in the United States, but it has garnered some respectable media attention for its high concentration of vitamin C, fiber, and antioxidants, and its ease of processing thanks to the fruit’s low moisture content.

Where it is marketed as a functional ingredient in the combined natural sales channels (including grocery, specialty/gourmet, and others), cherry is up a whopping 332% over last year. The Cheribundi tart cherry juice product is one of many functional beverages being marketed in this space.

As an ingredient for supplements, growth is much, much more modest at about 4% for all combined sales channels. Tart cherry is “commonly used for ridding the body of uric acid that accumulates in joint tissues, and has been touted as an alternative to using NSAID painkillers,” says SPINS’s Kawa.

Cheribundi launched a new black cherry juice this summer. The drink now joins the company’s bestselling original Cheribundi tart cherry juice. The company says, “Our Black Cherry Juice has a sweeter flavor profile than our tart cherry juice as it contains 50% tart cherries and 50% black cherries. The black cherries in the juice sweeten it up and give it a rich, smooth flavor.” In addition to black cherry and tart cherry juice, the drink contains apple juice from concentrate.

Cherry
A popular, well-known, native North American staple, the cherry (particularly the tart cherry) has been experiencing a renaissance thanks to its recent rebranding as a superfruit.
Maqui Berry
A relative newcomer to the U.S. superfruits scene, maqui berry saw growth of 58% from all combined natural grocery sales channels, including specialty/gourmet, during the past year.

Native to Chilean rainforests and adjacent regions of Argentina, the darkly pigmented fruit is marketed for its high anthocyanin content by such companies as Navitas Naturals, which sells it in powder form. As a dietary supplement ingredient, however, maqui berry was down about 12% from the prior 12 months.

Blueberry
Another beloved staple of North American food culture, the already popular blueberry’s “superfruit” status continues to evolve. Sales from all combined natural grocery channels, including gourmet/specialty channels, increased 95% over the past year, and many of those individual channels increased by 100% or more. Its sales as a dietary supplement ingredient declined; perhaps the blueberry’s long history and abundant availability as an actual food (rather than a supplement ingredient) keeps it from seeing a lot of success in this category in the United States.

Blueberry contains fiber; vitamins C and K; and manganese. It is rich in anthocyanins and is the subject of scientific study for its potential role in cardiovascular health, brain health, insulin response, and other wellness areas.

Does blueberry’s food success overshadow its supplements prospects?

Maureen Kingsley is a freelance writer, editor, and proofreader based in Los Angeles. She covers a variety of industries, including medical technology, food-ingredient manufacturing, and cinematography.
Nutritional Outlook’s

People-to-Watch Directory

A Who’s Who of the natural products industry
Lorraine Aboughanam, Vice President of Sales & Marketing
Elite Ingredients, LLC • Clifton, New Jersey

Since its launch in 2009, Elite Ingredients has managed to proactively facilitate essential improvements necessary in redesigning business concepts in the Nutraceutical Industry. Lorraine Aboughanam, Vice President of Sales and Marketing, is the key component in the company’s successful growth. The company’s Research and Development team continue to work tirelessly in efforts to gain exclusive distribution rights for elusive international raw materials. Lorraine and her team perform multiple quality-assurance checks to ensure optimal customer satisfaction. Elite Ingredients continues to build its reputation of excellence through attention to detail and consistent product analysis. They believe the best approach to a successful operation is customer satisfaction and optimal quality at the best value in the current market. Company standards and strategies are consistently updated to ensure smooth and expeditious services in order to keep up with current market trends. Elite Ingredients has recently expanded its customer base to include a greater scope of products offering materials used in the Pet as well as Food Industries. In addition to being the Vice President of Sales and Marketing, Lorraine has extended her services to a new demographic as a consultant for finished products. Her expertise and proficiency has been recognized by companies around the world. Lorraine Aboughanam and Elite Ingredients strive to raise the bar in the industry year after year. They are a company aiming for success.

www.elite-ingredients.com

Richard Pierce, Founder, President & CEO
GFR Pharma Ltd • Vancouver, BC

Richard Pierce has been involved in almost every aspect of the natural health products industry over the past 30 years. He began by formulating his own sports nutrition products to fill a void of high-quality products available to Canadians at the time. After selling off his successful line, Pierce decided to shift his focus to contract manufacturing to provide other brands with the same level of quality and service he expected for his own products.

The company he founded, GFR Pharma, is a premium contract manufacturer for some of the top natural health product brands in the marketplace.

Due to GFR Pharma's consistent double-digit growth over the years, GFR Pharma recently acquired a new building that will significantly expand their manufacturing capacity and make them one of the largest supplement manufacturers in North America. GFR Pharma will also be expanding their capabilities with new dosage forms and additional certifications. “We’re more than just a contract manufacturer,” Pierce explains, “our team delivers comprehensive solutions and keeps innovating to help our clients stay ahead of their competitors.”

In 2012, Pierce was recognized for his contributions to the industry with a Natural Health Products Canada Industry Leader Award. Pierce's entrepreneurial passion, insistence on high-quality products and service together with embracing new technologies and industry trends are key components to the success of GFR Pharma.

www.gfrpharma.com

Tom Tardi, Chief Operating Officer & Co-Owner
GFR Pharma Ltd • Vancouver, BC

Tom Tardi has a talent for seeing opportunities in the natural health field that have allowed him to lead significant expansions in the companies he's worked for. Inspired by GFR Pharma's potential growth, he recently became an equity partner in the capacity of the Chief Operating Officer.

Before joining GFR Pharma, Tardi worked as the Senior Vice President and Chief Operating Officer of Factors Group of Nutritional Companies, where he was instrumental in setting up manufacturing and packaging facilities around the world. He has also held senior leadership roles at Vita Health Products Inc. and Banner Pharmacaps.

In his new role, Tardi has taken responsibility for implementing GFR Pharma’s growth strategy through the management and expansion of operational functions; including all facets of manufacturing, warehousing, purchasing, scheduling, and plant engineering. Tardi’s wealth of knowledge and day-to-day operations skills have been invaluable in finding, purchasing and preparing for a much-needed move to a larger manufacturing facility. “The new building will allow us to build the operational infrastructure to pursue new business opportunities and grow significantly,” said Tardi.

Tardi’s passion for the industry and decades of experience are a key driving force in GFR Pharma’s mission to be a world-class natural health product contract manufacturer.

www.gfrpharma.com
Steve Holtby, President and CEO
Soft Gel Technologies, • Los Angeles, CA

Steve Holtby has been involved in the natural products industry for over 21 years. In August 2008, Steve took over the role of President and CEO for Soft Gel Technologies, Inc. (SGTI). He formerly held the position of National Sales Director for SGTI and Vice President of Sales of OptiPure. Steve has been with the company since 1998.

Prior to joining Soft Gel Technologies, Steve worked in Marketing as a Brand Manager for Nature’s Way. While there he oversaw the introduction of their vitamin line. The Nature’s Way vitamin line was the first entire line of products in the natural products marketplace to carry the newly introduced structure/function claims and was a bold entry into that segment for the company who had previously focused on the herbal segment of the market.

www.soft-gel.com

Gale K. Bensussen, President and CEO
Vit-Best Nutrition, • Tustin, California

When Gale Bensussen assumed the role of President and CEO at Vit-Best Nutrition, he brought extensive nutritional supplement manufacturing experience to the firm. Gale was a founding partner and former President of Leiner Health Products, one of the world’s largest manufacturers of nutritional supplements and over-the-counter drugs. During his 32 years with Leiner, Gale’s accomplishments included leading nine acquisitions and integrations. Since 2014 Bensussen has served as Chief Executive Officer of Doctor’s Best, a science-based nutritional supplement company.

Gale also holds a J.D. from the Southwestern University School of Law and has an extensive legal background. Gale’s experience in regulatory affairs and corporate governance has helped him contribute to the Boards of Leiner Health Products, Avalon Natural Products, and Healthnotes/Aisle 7, as well as trade organizations such as the Consumer Health Products Association and the Council for Responsible Nutrition.

A graduate of the USC Marshall School of Business, Gale was a Trustee for the University from 2004 to 2009, is heavily involved in the university’s alumni associations, and has provided funding to establish several laboratories at the school.

Gale is a frequent speaker on health-related topics and consults with companies regarding investment opportunities, corporate strategy, strategic alliances and new product marketing.

www.Vit-Best.com

John Altenberg, Vice President, Sales & Client Services
Vit-Best Nutrition, • Tustin, California

Before joining Vit-Best Nutrition in October 2015, John Altenberg was with NBTY where he served as Vice President/General Manager of Contract Manufacturing for the previous seven years. At NBTY, John successfully merged Leiner’s Contract Manufacturing customer base into the NBTY portfolio. With profit and loss responsibility for the entire division, John was able to raise profit margins with all major customers.

From 1989 to 2008, John was with Leiner Health Products, where he held a number of leadership positions. Most recently, as Vice President/General Manager of Contract Manufacturing, his efforts to grow the business with Consumer Healthcare Divisions within the pharmaceutical industry were so successful that Contract Manufacturing was noted as a “primary growth engine” in the company’s 10-Q press releases.

Some of John’s numerous other accomplishments at Leiner included development of strategic trade marketing programs for the largest FDMC customers, commencement of a Category Management group to provide the data needed to identify opportunity gaps and merchandising recommendations for retailers, and an icon-based system to classify nutritional supplements according to their specific benefit(s).

John’s career also includes experience in the consumer magazine sales and food product marketing fields.

John earned his B.S. in Business Administration from San Diego State University, and MBA from Pepperdine University.

www.Vit-Best.com
People to Watch Directory

**David YiHai Jiang, PhD, Director, R&D/Technical Services**

**Vit-Best Nutrition • Tustin, California**

David Jiang is an expert in nutritional product formulation and manufacturing. Since 2010 David has served as Director, R&D/Technical Services at Vit-Best Nutrition (previously known as Vita-Tech). In this capacity he has lead numerous nutritional product formulation development projects, from initial concept screening to execution, scale-up, and successful completion of validation batches. David’s responsibilities also include developing standards and protocols, supervising a team of chemists and scientists, troubleshooting manufacturing issues, and more.

Prior to joining Vit-Best, David served in a similar capacity as the Technical Director at Pfizer. David’s strong creative problem solving skills in formulation and manufacturing-related issues were much appreciated as he led multiple nutritional product formulation development projects for both powder and liquid products. David also led the quality control team; supervised managers, group leaders, chemists and scientists; and developed a wide range of manufacturing and development protocols and processes.

Other career highlights include serving as Direct/VP, Product Development at Nexgen Pharma Inc.; R&D Manager at Gero Vita International; Scientist/Sr. Scientist at Amiron Inc.; Postdoctoral Fellow at Texas A&M University; R&D Scientist/Group Leader at Tianjin Coca-Cola Ltd in China; and Research Assistant at Tianjin University of Technology.

David is fluent in Chinese. He holds a PhD in Nutrition, Master of Science in Food Engineering, and Bachelor of Science in Industrial Pharmacy.

[www.Vit-Best.com](http://www.Vit-Best.com)

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**Tomo Kirimoto, General Manager/ VP of Operations and QA**

**Soft Gel Technologies, Inc. • Los Angeles, CA**

Tomo Kirimoto was hired at Soft Gel Technologies, Inc. as assistant plant manager in 2001. Prior to joining Soft Gel, Tomo worked at its parent company, Japan-based Kenko Corporation. Tomo now serves as the General Manager and the Vice President of Operations and QA. He is responsible for quality control in the plant as well as overseeing engineering improvements of the factory and machinery. He is also in charge of all aspects of plant management, including overseeing the mechanical facilities and improving the efficiency of the plant.

Tomo graduated from the Tokyo Institute of Technology and has a master’s degree in Material Science. He is an avid golfer and enjoys spending time with his wife and two children.

[www.soft-gel.com](http://www.soft-gel.com)

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**Jennifer Buchanan**

New Business Development Manager

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**Gillian Christie**

Founder/CEO

Christie & Co

Santa Barbara/ Boulder/ New York

As a Branding, PR, Marketing, Public Affairs, and Advertising Executive for over 25 years, Ms. Christie has received numerous awards and created tremendous success for her clients. Gillian founded Christie & Co to support ethical companies nationally and internationally in reaching their goals through her proven Organic Marketing® technologies, providing maximum results with the minimum use of resources.

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Kiran Majmudar
President
J+D Labs
Vista, CA
Kiran arrived in the USA with $8, a good education and plenty of determination. Along with his wife, Hemma, they combined their knowledge of chemistry, pharmacology and manufacturing to fulfill the quintessential American dream. Their dedication and expertise has made J+D Labs one of the finest nutraceutical manufacturers in the world.

www.jdlabs.com

Dev Majmudar
Director of Product Development
J+D Labs
Vista, CA
Dev was born and raised in Vista, CA. He attended The University of California Berkeley where he received a Bachelor’s in Molecular Biology. Dev currently serves as the Director of Product Development at J+D Labs where he applies his inherited knowledge of the dietary supplement industry to formulate quality softgels, tablets and capsules.

www.jdlabs.com

Alissa
VP Growth & Strategy
Christie & Co
Santa Barbara/ Boulder/ New York
With a background in Strategic Planning, Brand Strategy, Investor Relations and Corporate Social Responsibility Program Development, Alissa heads Christie & Co’s Strategic Planning and Growth Strategy Sectors and serves as the Executive Director of the Christie CommUnity Foundation. Alissa leads Christie & Co’s Strategic Planning Team to develop results-oriented, comprehensive strategies across multiple industries.

www.christieand.co

Lisa Lashaway
Market Research
Christie & Co
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With over 25 successful years’ experience in the Marketing and Market Research field, Ms. Lashaway creates and implements successful market research programs implementing Christie & Co’s effective Conversion Market Research technology for a number of diverse national and international clients including environmental services, non-profit, natural product, medical, retail, agriculture, and manufacturing.

www.christieand.co

Jay Majmudar
Director of Operations
J+D Labs
Vista, CA
Jay got his undergrad at UCLA and Doctorate in Pharmacy from USC. He was a Clinical Pharmacist at Target Pharmacies, but ultimately garnered a spot in corporate operations. In 2010, he brought this one-two punch of pharmaceutical knowledge and business savvy to the J+D Labs Team.

www.jdlabs.com

Thom King
CEO
Steviva Ingredients, Inc.
Portland, OR
Thom King founded Steviva Ingredients in 1999 as a result of his passion for health, community service and environmental advocacy. As the CEO of one of the world’s leading suppliers of “good for you” sweeteners, King is committed to producing the food industry’s purest all natural, nutritious, non-nutritive and high intensity sweeteners slated for clean label sugar reduction. King balances his commitment to shareholders by delivering value and expertise to their customers while giving back to the community. Steviva Ingredients - Where Sweeteners Come Naturally

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Probiotic Strain BB-12 May Help Improve Bowel Function: Large Study


Results of a large study recently published in the *British Journal of Nutrition* has supplier Chr. Hansen (Hørsholm, Denmark) even more certain that its BB-12 probiotic strain is “the best documented *Bifidobacterium* in the world.”

The randomized, double-blind, placebo-controlled study included 1248 participants and compared the gastrointestinal effects of BB-12 (*Bifidobacterium animalis* subsp. *lactis*) with a placebo. Researchers found subjects who took the probiotic daily for four weeks experienced a “clinically relevant benefit on defecation frequency” that was significantly higher than the placebo group.

“Once again, it is confirmed that the BB-12 probiotic strain can bring significant gastrointestinal benefits to those who experience digestive issues,” says Mikkel Jungersen, scientific advisor, human health and nutrition, Chr. Hansen. “What is truly unique about this study is its size of more than 1200 subjects varying in age from 18 to 70, which has resulted in the largest data set available on the effect of probiotics on bowel function.”

The 1248 study participants were adults who reported a low defecation frequency and complained of general abdominal discomfort. Following a two-week run-in period, participants were randomized to consume either 1 billion colony-forming units (CFU) of BB-12, 10 billion CFUs of BB-12, or a placebo to take in matching capsule form once every day for four weeks.

Although participants taking BB-12 did show an improvement in defecation frequency over the placebo, the two different doses of BB-12 that were tested produced similar results. Researchers suggested this might be because BB-12 reached a ceiling effect with the 1 billion CFU dose.

Additionally, researchers also evaluated the overall gastrointestinal well-being of the participants based on whether or not they felt relieved for at least 50% of the time, but there was no significant difference observed between the experimental and placebo groups.

Shilajit Ingredient May Increase Male Testosterone Levels

Pandit S et al., “Clinical evaluation of purified shilajit on testosterone levels in healthy volunteers,” *Andrologia*. Published online September 22, 2015

PrimaVie, a purified shilajit ingredient supplied by Natreon (New Brunswick, NJ), has shown research potential for use in sports nutrition and antiaging products in the past. But the results of a recently published study suggest it may also have a place in male sexual health products.

Writing in the journal *Andrologia*, researchers reported that men who received 250 mg of PrimaVie twice daily for 90 days showed a significant increase in testosterone levels over those who took the placebo.

The randomized, double-blind, placebo-controlled study was conducted at the J.B. Roy State Ayurvedic Medical College and Hospital (Kolkata, India) and included 75 healthy volunteers aged 45–55. For 90 days, the men either took PrimaVie or a placebo, with total and free testosterone estimated from fasting blood drawn from each volunteer at 0, 30, 60, and 90 days into the intervention period.

Researchers found that after 90 days, the PrimaVie group showed a 20% increase in total testosterone levels and a 19% increase in free testosterone levels. Natreon says the results “suggest that PrimaVie would be an ideal ingredient for male sexual health products.”

According to Natreon, PrimaVie purified shilajit “consists of dibenzo-alpha-pyrones (DBPs), DBP-chromoproteins (DECPs), fulvic acid, and 40 different trace metals.” Shilajit is found in the Himalayas.

Probiotic EcoVag May Defend Against Vaginal Infections


EcoVag, a probiotic designed for vaginal health, has shown promise in previous research at protecting against bacterial vaginosis (BV) infections, but a new pilot study suggests it may also reduce the risk of vulvovaginal candidiasis (VVC) infections.

Writing in *BMC Infectious Diseases*, researchers reported that combining EcoVag capsule supplementation with antibiotics or antifungal medication was shown to provide long-term relief from BV and VVC in women suffering from these infections. The findings come as the result of a pilot, open-label clinical trial of 30 women aged 22–43.

The EcoVag capsules used in the study contained strains of *Lactobacillus rhamnosus* and *Lactobacillus gasseri*. According to EcoVag supplier Bifodan A/S (Copenhagen), this is the first research to indicate EcoVag’s potential benefits on VVC.

“While the positive influence of EcoVag in reducing the risk of recurrent BV has been proven in other clinical trials, this new publication marks the first time that a similar positive relationship is established for preventing recurrent VVC,” says Niels Peter Back, EcoVag business unit manager. “This is very encouraging and suggests that EcoVag has a broader application and also should be recommended for use in combination with treatment with antifungals to reduce the risk of recurrent yeast infections.”
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In the last year, U.S. sales of products labeled as “made with ancient grains” have grown by 35% to reach more than $209 million, according to SPINS (Schaumburg, IL). And while quinoa may still be the most ubiquitous, much of the growth is driven by up-and-coming ancient grains, such as farro.

SPINS data indicate sales of packaged farro bearing the label “made with ancient grains” grew by 26.4% in the past year. Bakery foods marketer Bob’s Red Mill (Milwaukie, OR) says farro is now its second-bestselling grain behind quinoa.

So, what’s to love about this surging grain?

Selling History

Confusingly enough, there are actually three different ingredients commonly marketed under the name farro: emmer, einkorn, and spelt. While each grain has a different nutrient profile, the farro grains share some key formulation traits and a long and storied history of human use.

“The history of farro swirls with romance,” says Dennis Gilliam, vice president of sales and marketing, Bob’s Red Mill, which offers farro made from lightly scored spelt. “Once a mainstay of the daily diet of ancient Rome and a staple source of nourishment for the Roman legions, it is considered by some the ‘mother of all wheat.’”

Grain supplier Honeyville (Brigham City, UT) has also seen significant sales growth for spelt, according to Tim Devey, corporate marketing director. Beyond ancient grains’ perceived health benefits, he claims it’s also the unique stories of each ancient grain that are driving growth.

“Consumers and companies are looking for grains and seeds that have numerous health benefits, and the more rare or exotic they seem, the better,” says Devey.

“Very Approachable”

Farro also stands out as an “extremely easy” substitute for wheat and barley, says Devey. Part of that is due to farro’s slightly nutty taste, as well as its formulation behavior.

“Farro grains tend to react somewhat similarly to wheat, which makes them a semi-easy transition in standard baking applications,” says Honeyville’s Devey. “Spelt, for example, can be switched out with standard wheat with little or no alteration to the formula or application.”

Similarly, Gilliam from Bob’s Red Mill calls farro “a very approachable grain,” especially among consumers new to cooking with whole grains. He points out that farro “cooks much faster than other ancient grains” and can add a creamy texture to certain formulations.

“Farro is a pretty stellar grain,” says Gilliam. “Because it is semi-pearled it cooks quickly, but the remaining bran helps to ensure against overcooking and grain blowout. Plus, it works in a variety of dishes: soup and stews, porridge, warm and cold salads, and stuffings. It’s hard to go wrong with farro.”

Cost is another factor in farro’s favor, suggests Gilliam. While the price of quinoa and chia seed has risen as demand has “skyrocketed,” Gilliam says farro has remained more moderately priced.

More Grains to Watch

Turning to other ancient grains on the rise, Bob’s Red Mill has seen millet achieve new popularity in the past year. A combination of millet’s high protein content, mild and sweet flavor, and quick cooking time is driving the growth, says Gilliam. He adds that unlike other grains, millet is alkaline and therefore easier to digest.

Honeyville’s Devey sees teff, quinoa, and sorghum as performing especially well recently. Sorghum and quinoa may be benefiting from their gluten-free status and growing use in cereals and snack foods, says Devey, while teff is a relative newcomer to the U.S. market that may be leveraging its African heritage to tap into the desire for unique and exotic grains.

Don’t be fooled by the name; the emerging interest in these grains is anything but ancient.

References

1. Data as of October 4, 2015
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