



Marketing Environment 2018

Trends & Outlook in the Nutritional Marketplace



theWrightGroup[™]

© Copyright 2018 Wright Enrichment, Inc.

TABLE OF CONTENTS

Economy	3
Demographics/ Psychographics	5
Millennials	6
Healthcare	7
Functional Foods	8
Functional Beverages	9
Nutrition Bars & Healthy Snacks	10
Supplement Industry	10
China	11
Nutricosmetics	12
Pet Products / Feed Industry	13
About the Wright Group	14

UNITED STATES

ECONOMY

GDP GROWTH IS ESTIMATED TO BE ~2.0% IN Q1 2018 AND IS EXPECTED TO BE +2.8% IN 2018. IT HAS BEEN THE SECOND LONGEST RECOVERY IN U.S. HISTORY AND WILL BE 10 YEARS OLD IN JULY.

- **The U.S. population now stands at 326.7 MM**, with 0.7% growth in 2017. The birth rate has dropped for two years in a row.
- Immigration has slowed in the wake of more stringent policies, adding to the tightness in labor markets where unemployment is at an 18-year low of 3.8%. Some companies are finding it difficult to fill 6.5 MM highly-skilled positions.
- Wage growth rose 2.9% in 2017, the highest rate since 2009. There have been 93 consecutive months of job growth.
- Recent moves toward an all-out trade war with allies and adversaries alike threaten to upend the economy on every level unless cooler heads can prevail. The coming tariffs, if implemented, would be a tax on American consumers, which could drive inflation and unemployment higher.
- The effects of a trade war with China would be primarily B2B with limited impact on Chinese consumers, but in the U.S., it would be B2C, which could derail the recovery.
- Supply chains have become entangled and incredibly complex as companies have globalized over the last 20 years. How will this now work in a trade war?
- The withdrawal from the Trans-Pacific Partnership, threatened changes to NAFTA, and recent Chinese retaliatory tariffs on soybeans and pork will hurt U.S. agriculture. China accounts for 30% of total U.S. soybean production and 62% of exports. Brazil and Argentina are gearing up to fill the gap.
- Some food ingredients, vitamins, minerals and other nutrients could get embroiled by this tariff issue.
- Inflation has increased to above the Fed's 2% target for the first time in four years, primarily due to food and energy costs. Inflation generally has been flat for a decade in spite of rising healthcare and housing costs. This has been offset by price declines in foods, technology/communications as well as retail price pressure.
- The Fed raised rates for the second time this year to a target rate of 1.75-2.00%. Two more hikes are predicted in 2018 with three planned in 2019.
- The national debt now stands at \$21.2 TR and is headed higher in light of recent tax cuts. The last time the U.S. was debt-free was in 1835.
- Oil prices rose to \$80/bbl in May and have recently dropped to ~\$72/bbl. OPEC and Russia have agreed to hike production by 600,000 bbl/day so as not to lose market share to the U.S. Global oil demand is expected to top 100 MM barrels per day by late 2018.

**U.S. household net
worth is at \$100.7
TR, the highest
level EVER**

- In 1973, oil use represented 46% of U.S. energy consumption, falling to 31% by 2017. The coming wave of solar, wind and natural gas usage will accelerate this trend and the U.S. will increase net oil exports which are now anticipated to reach 4 MM barrels/day by 2023. U.S. oil production is expected to top 11 MM barrels/day in 2018.
- The IMF has projected global growth at 3.9% in 2018. The World Bank projects 2.9% growth.
- U.S. household net worth is at \$100.7 TR, the highest level ever due in large part to some recovery in home values, improving job prospects and increases in the equity markets over the past few years. The S&P rose 23% in 2017, though the DJIA has recently gone negative for 2018.
- Global Household net worth is estimated at \$257 TR by the World Bank. This is 3.4X global GDP. The top 10% owns 89% of these assets. About 765 MM people live on less than \$1.90/day.

RETAIL ENVIRONMENT

THE RETAIL ENVIRONMENT IS SHIFTING DRAMATICALLY AS MORE CONSUMER SPENDING MOVES ONLINE. AMAZON'S RECENT ACQUISITION OF WHOLE FOODS COULD BE THE OPENING SHOT IN REVOLUTIONIZING THE \$800 B U.S. GROCERY BUSINESS. AMAZON

MEANS FAST, CHEAP, DATA-DRIVEN AND INNOVATIVE. WHOLE FOODS MEANS NATURAL, EXPERIENTIAL AND EXPENSIVE. IT WILL BE INTERESTING TO SEE HOW THIS COMBINATION SHAKES OUT.

- **Amazon recently acquired PillPack, an online supplier of prescription drugs,** for \$1B. Market caps of pharmacy companies and drug distributors fell by \$14 B the day of the transaction, showing how much Amazon is feared as it moves into new categories.
- Walmart is under stress after many years of retail dominance as Amazon does to them what they did to other retailers on their path to pre-eminence. These statistics from 2017 tell the tale:
 - Walmart had \$500B in revs with a \$230B market cap
 - Amazon had \$136B in revs with a \$472B market cap
- Major consumer packaged goods brands are finding it difficult to cope with these changes in retail and consumer preferences toward niche brands and alternative shopping formats. Several have formed venture groups to accelerate innovation by acquiring positions in small start-ups.
- The most vulnerable categories to e-commerce competition are “center-aisle” packaged products, where the large CPG companies and private labels now dominate. “Perimeter” products such as meat, fresh produce, bakery, dairy, deli have short expiration dates and are harder to ship. Frozen products are also less likely to be purchased online. Amazon may change all this, however, as their logistics systems and blockchain technology become more widely adopted.
- Private-label products valued at \$120 B is now 20% of the U.S. grocery business. It is a good time to be a co-packer.
- Online shoppers tend to use automated shopping lists and sometimes digital assistants like Amazon's Alexa. The brand assortment online is basically infinite vs. the typical 50-60,000 SKUs in a grocery store. This is a serious strategic challenge to established CPG companies.
- E-Commerce is now about 1.2% of grocery purchases but grew 30% in 2017. It may reach 20% by 2020 according to a Goldman-Sachs analysis.
- The role of digital/mobile technology, social influencers, YouTube channels and blogs have disrupted what used to be a pretty boring and predictable business. Millennials and Gen Z are very comfortable in this new world.
- **Dietary supplements, in particular, are very compatible with online shopping. They are high value, small, not fragile and easy to ship.** Consumer comments are sometimes used to make health claims not allowable via other communication vehicles.

DEMOGRAPHICS / PSYCHOGRAPHICS

THE TOTAL U.S. POPULATION NOW STANDS AT 326.7 MM WITH GROWTH AT 0.7%, THE SLOWEST RATE SINCE 1936-7. THE COMING FALL IN IMMIGRATION WILL CONTINUE THIS TREND, TIGHTENING LABOR MARKETS FURTHER.

- Global median age is now 30, vs. 37.8 in the U.S. and 47 in Japan. About 53% of the over-65 population will be in Asia by 2030.
- The U.S. age composition of is as follows:

	Age in 2017	% Of Total
Generation Z	<1-21	27
Millenials (Gen Y)	22-39	25
Generation X	40-51	15
Baby Boomers	52-70	23
Older Americans	71+	10

- Life expectancy in the U.S. declined by 0.1 years in 2016 for the second time in a row, due in large part to the opioid overdose epidemic, and the annual number of births fell 8% vs. 2007's peak.
- In the U.S., a 70-year-old man has a 2% chance of dying within a year. In 1940, this was 56%. The hot new term for aging consumers is **"Geriatrics"**
- In 1950, 5% of the world population was over 65. By 2015, this was 8% and by 2050, it will be 16%.
- **The generations have different goals for nutrition. The main concerns are:**

Generation Z	Cognition, immunity, ocular health
Millenials (Gen Y)	Skin health, energy, alertness
Generation X	Immunity, skin health
Baby Boomers	Cognition, Ocular, Cardiovascular
Older Americans	Mobility, malnutrition, sarcopenia

- Prior to 1800, no country on Earth had an average life expectancy beyond 40 years of age. Since 1900, more years have been added to human life than in the rest of history combined thanks to better nutrition, medical care, sanitation, safety and reduced infant mortality.
- The U.S median age is now 37.8 years old and will be 42% by 2045. In China, 10% of the population is now 65 and this will increase to 27% by 2045.
- The global median age, currently at 30, will increase to 36 in 2050 and 42 in 2100. About 25% of the global population is now over 50 and 25% of Japan is over 60. This aging of the population will have major impact on our food and health care systems globally. Also, there is the question of who will pay for it all?
- FAO is predicting a 50% increase in food, feed and biofuels demand by 2050, meanwhile, about 33% of food produced (1.3 billion MT) is wasted for various reasons.





MILLENNIALS

MILLENNIALS, BORN 1980-1997 AND AGED 22-39 IN 2018, ARE 25% OF U.S. POPULATION, SLIGHTLY LARGER THAN THE BABY BOOMERS AT 23%.

- Many are **first generation Americans in prime acquisition mode**. About 86% of Millennials are in emerging economies.
- Collectively, they will represent \$4 TR of purchasing power by 2030 and stand to inherit \$25-30 TR from their Boomer parents over the next 30 years.
- They follow micro-influencers on social media and tend to distrust large institutions and “experts”.
- They are **willing to pay more for sustainable products**, organics, non-GMO, fair trade and other types of social responsibility. They demand transparency from the brands with which they choose to have a relationship.
- **Millenials are focused on performance and good nutrition to support their current lifestyles** and show a definite preference for foods, beverages and alternate dosage forms over pills and capsules. They are not about disease yet.
- They have a new value set and want to pierce the corporate veil in order to see what is behind the brand. They lean toward transparent, authentic, more local and smaller brands created just for them. Craft beer is an excellent example of this shift in values and tend to want “craft” everything.

GENERATION Z

GENERATION Z, BORN 1997-2018, ARE NOW 1-21 YEARS OLD AND THE MOST DIGITALLY CONNECTED GENERATION

IN HISTORY AND BASICALLY LIVE ONLINE AS THE FIRST TRUE DIGITAL NATIVES.

- They are the largest U.S. cohort, representing 27% of the population. They will account for 40% of consumers by 2020.
- Gen Zers actually like to shop in stores in addition to using e-commerce and 47% participate in a family’s grocery shopping where they have a heavy influence. They shop for variety and value online and expect a seamless brick & mortar experience in-store. They care more about convenience than price.
- Gen Zers use mobile shopping apps and payment more than other generations and respond to emojis, GIFs, video clips and social platforms beyond Facebook, Instagram, YouTube and other “stone-age” platforms their parents and older siblings use.
- Personal health is not yet top-of-mind, but performance is. They over-index in sports shakes, smoothies, bottled water and snack bars.
- They are not as likely to attend formal college but have a deep desire for knowledge and are more likely to start a business.
- **Boomers and Gen X are the past and present of consumer markets but Gens Y and Z are the future.** Time to get ready!



HEALTHCARE

U.S. HEALTH CARE EXPENDITURES IN 2017 ARE ESTIMATED TO BE ~\$3.45 TR, WHICH IS ~17.8% OF GDP. THIS IS \$10,560 PER CAPITA.

- Growth is estimated at 5.5% 2016-2026 reaching \$5.7 TR. Medicare and Medicaid costs represent 37% of all health care expenditures.
- This will be a major driver of the dietary supplement, functional food and other self-care markets for the foreseeable future. There are compelling economic reasons for people to do all they can to stay out of the traditional health care system wherever possible.
- Amazon, Berkshire Hathaway and JPMorgan Chase have combined to form their own healthcare system for their 1.2 MM employees.
- Evaluate Pharma has predicted that drug prices will fall by a total of \$390 B over the period 2017-22 due to political pressure and increased purchasing power of third party payers, insurance companies, Medicare/Medicaid, etc. In the meantime, the cost of bringing a new drug to market has increased to \$4 B and takes ten years.
- Lifespan is way ahead of “healthspan” as chronic diseases of aging, based largely on inflammation, continue to proliferate. Diabetes, cardiovascular diseases, cancers, dementia and joint disorders are the major problems.
- Sarcopenia, or muscle-wasting disease, affects aging consumers as well as those fighting cancer and other chronic diseases. It is said to be the new osteoporosis, is very prevalent in nursing homes and a major threat to mobility.
- Dietary supplements and functional foods will be part of the ultimate solution in combination with lifestyle changes and new technologies such as personalized medicine.
- We have been watching trends on a continuous basis since the Wright Group’s founding in 1956. The market segments that we serve were more distinct in the past and had bright boundaries.

- What we are now witnessing is a major convergence in all areas related to healthcare and wellness into what is called a meta-industry. Leaving drugs, hospitals, insurance companies, gyms and governments aside for a moment, the boundaries between these segments are blurring like never before. Where does one industry end and another begin?
- OTC drugs
- Dietary supplements
- Functional foods and beverages
- Meal replacements
- Sports nutrition
- Medical foods
- Infant formula
- We remain supremely confident in the future of this meta-industry for both ourselves and our partners.

There are compelling economic reasons for people to do all they can to stay out of the traditional health care system wherever possible.

FUNCTIONAL FOODS/ FOOD INDUSTRY

THE GLOBAL AGRICULTURE/FOOD COMPLEX IS AMONG THE WORLD'S LARGEST INDUSTRY, AT \$8.5 TR IN 2017, ABOUT 10% OF GLOBAL GDP.

- We estimate U.S. sales of functional foods grew 6.4% to \$63.3 B in 2017. Beverages remain 63% of this total. This sector is now 49% larger than dietary supplements. Channels are becoming more mainstream and almost all food has some “functional” element.
- Globally, the functional food/beverage market is expected to hit \$247 B in 2018. It largely depends depending on what is counted as “functional”.
- On average, consumers are using functional products to manage 9.6 health conditions, prevent 6.4 and treat 3.6. WHO reports that 42% of adults have hypertension, 39% have high cholesterol and 6% have diabetes. Obesity is an ever-increasing problem.
- The industry has an important educational role to play in bringing consumers up to speed on nutritional knowledge. Only 12% of consumers can make a specific association between a nutrient and a health condition which may be affected by it.
- Organic food products achieved global revenues of \$100 B and U.S. revenues of \$49 B in 2017. The U.S. market grew at 8.4% and is now 5.3% of all food sales.
- Global sales of all organic products are expected to reach \$238 B by 2022. Organic foods are, by nature, non-GMO, accounting in some part for their rapid growth.
- The concept of GMOs remains very controversial with vast numbers of consumers believing they are potentially harmful. In the meantime, 90% of corn and soy grown in the U.S. is GMO. It is hard to see how we will feed a population growing 31% to 9.7 B by 2050 without utilizing new technologies.
- Non-GMO foods were \$349 MM at baseline in 2010. They are now \$26 B in 2017, despite the fact that 88% of scientists claim there are no safety problems or even product differences between GMO and non-GMO products. Like in the case of climate change, consumers believe what they choose to believe, and companies will sell what consumers want to buy.
- Many vitamins and nutrients are made by fermentation or extraction processes from GMO crops such as soy include amino acids, ascorbic acid, riboflavin, B-12, Q-10, beta-carotene, lycopene, natural vitamin E.

**Organic food
products achieved
global revenues
of \$100 B and U.S.
revenues of \$49 B
in 2017**



FUNCTIONAL BEVERAGES

GLOBAL FUNCTIONAL BEVERAGE SALES ARE EXPECTED TO REACH ~\$105.5B IN 2021. THE CATEGORY IS GETTING HARDER TO MEASURE DUE TO THE ADDITION OF TEAS AS WELL AS SOME DOUBLE-COUNTING OF ENERGY AND OTHER SPORTS BEVERAGES. THE CATEGORY IS

NOW MAINSTREAM AND WE HAVE SEEN 19% OVERALL GROWTH SINCE 2013.

- Suffice it to say that functional beverages have gone mainstream and 27% of all new beverage launches in 2017 have had some functional elements. This is up 12% from 2016, according to Imbibe.
 - Most common claims are for energy, alertness, digestive health and antioxidants. About 31% were vitamin/mineral fortified. It is estimated that about 8% of U.S. beverages contain an energy claim.
 - The key vitamins used include the antioxidants Vitamin C and mixed tocopherols, but vitamins D, K and B-12 are growing fastest. B-12 is especially important for older consumers and those on a plant-based diet.
 - Fiber, prebiotics and probiotics are becoming more widely used in beverages and are expected to grow 44% by 2020. Roughly 19% of functional drinks carried a digestive health claim in 2017.
 - Energy drinks and shots were up 6.2% in 2017 and will grow 47% by 2021 to \$19.2 B. The fastest growth will be Hispanics and Millennials. The trend is toward more natural forms of energy rather than pure caffeine.
 - **Red Bull, Monster (Coke) and 5-Hour Energy** continue dominate this segment with close to a 90% share, but lots of new entrants with different positionings are making themselves heard.
 - Less sugar, cleaner labels, botanicals, but also vitamins are major shifts. Nootropics based on mental acuity, mood improvement, memory and clarity are the key benefits now sought....not just physical energy.
 - Sports drinks will be \$8.5 B in the U.S. by 2020, representing 4.4% compound annual growth.
 - Cannabinoid (CBD)-containing products derived from marijuana, many in beverage form, are beginning to enter the marketplace, but probably very early in terms of the legal and regulatory status (We would imagine these go well with Cheetos!)
- Plant milks were up 7% to \$1.61 B. Plant waters are also gaining in popularity and are now a \$500 MM category which grew 20% in 2017. They are anticipated to grow 13% annually through 2021 to reach \$900 MM.
 - Protein drinks hit \$2.5B in 2017, according to NBJ. Liquid meal replacements will grow to 6.5B by 2020.
 - Functional beverages, in particular, make a lot of sense in addressing an aging population. Flavoring and sweetening systems can mask the taste of problematic ingredients. They are also more convenient and easier to consume than pills.



NUTRITION BARS & HEALTHY SNACKS

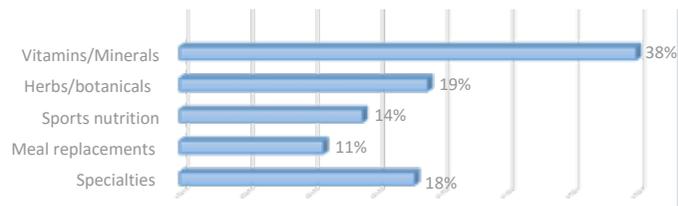
NUTRITIONAL BARS ARE USED AS SNACKS BUT HAVE ALSO BECOME MINI-MEALS FOR TIME PRESSED CONSUMERS, ESPECIALLY DURING LUNCH. THEY ARE ALSO PORTABLE BREAKFAST FOR MANY.

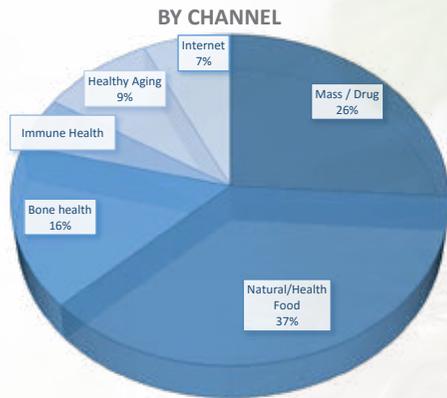
- The market itself has gotten very fragmented into cereal bars, fruit and nut bars, energy bars, protein bars and other specialty products.
- NBJ predicts that functional snacks will become a \$8.5 B category by 2020. 65% of adults use them as an energy boost. (Snickers has also positioned itself with this same selling proposition, with positive results.)
- Mintel claims that the bar market is up 24% since 2011 to \$6.7 B and will grow to \$8.2B by 2020.
- Hartman Group has identified three non-exclusive segments within the functional snack market. Some overlap:
 - Nourishment (56%) seeking daily sustenance, long term wellness and overall health management
 - Optimization (34%) seeking physical and mental performance
 - Pleasure (49%) seeking enjoyment, emotional well-being, craving and comfort
- The highest use is among those of both genders between 25-54 years of age:
 - 60% use bars as portable breakfast
 - 75% eat them between meals for an energy boost
 - 33% are actively seeking healthier snacks

SUPPLEMENT INDUSTRY

ACCORDING TO NBJ, THE U.S. DIETARY SUPPLEMENT INDUSTRY GREW 5.4% IN 2017 TO \$43.2 B.

- Raw materials were \$5.1 B, or 11.8% of industry revenues.
- Global dietary supplement sales hit \$121.2B in 2016, up 5.7% from 2015. The U.S. was the largest part of this market at 34.1% (NBJ data). We anticipate 2018 sales to be close to \$135B.
- The Chinese market is becoming more important and there is a definite preference among Chinese consumers for U.S. and other Western-made products due to safety issues. The market is now \$30 B, counting food forms and Traditional Chinese Medicine products. It is anticipated to grow 10% annually to 2025.
- Overall Asia/Pacific revenues are in the range of \$46 B growing to \$56 B by 2023.
- Combined U.S. dietary supplements and functional foods surpassed \$110 B. The combined market in 1994 was \$6B.
- Gummies are now a \$2.7 B business growing at 5.2% through 2025, reaching \$4.2 B in revenues. They are used by young and old alike for a different set of reasons. Multi-vitamins/minerals dominate the category at 76%.
- Herbs and botanicals rose 6.7% to \$8 B in 2017.
- The **composition** of the dietary supplement market is:





- It is estimated that 170 MM of U.S. adults take supplements regularly, an all-time high of 76%, up from 71% in 2016. The top four reasons for taking supplements are general health and well-being, fill nutritional gaps, energy, and immunity.
- There is a definite shift to a preventative, holistic health mindset across generations as the economics of healthcare become unsustainable for most people.
- With the emergence of nutrigenomics-based personalized nutrition, **prediction** may also be possible in addition to **prevention**.

- The House version of the 2018 Farm Bill allows vitamin/mineral supplements to be purchased using SNAP (Supplemental Nutrition Assistance Program), formerly known as food stamps. The Senate version is awaiting passage.
- **“Pill fatigue”** is driving innovation in dosage forms, particularly for older Americans who are taking drugs in addition to supplements. Gummies, chews, sachets, sprinkles, chewing gum, mints and more food-like products are growing fastest.
- Personalized nutrition based on nutrigenomics and nootropics/biohacking are beginning to be felt across several industry sectors, but implementation is still years away. DSM, BASF, Nestle, Campbell’s and others have created joint ventures with smaller companies to exploit this emerging technology.
- **Consumers are committed to being more proactive about their health**, regardless of what the regulators and traditional health care providers might say.
- The re-emergence of major CPG companies into the supplement space will give new momentum to market growth. P&G, Reckitt-Benckiser, Clorox, Nestle have all made acquisitions in 2017 and we feel this will continue. Big incumbents include Pfizer, GSK and Amway.

CHINA

THE CHINESE MANUFACTURING SECTOR IS NOW LARGER THAN THE U.S., WESTERN EUROPE AND JAPAN COMBINED AND ARE MOVING AGGRESSIVELY INTO HIGHER VALUE PRODUCTS. THE SERVICES SECTOR IS NOW 56.6% OF THE ECONOMY VS. 82% IN THE U.S.

- Chinese nutrient markets are becoming somewhat less volatile than they had been in the first half of 2018, but **much uncertainty remains as to what longer term impact government environmental and trade policy will have** for the balance of the year into 2019 and beyond.
- There has been, and continues to be, a rigorous inspection regime on a province by province basis under which 30,000 companies have been penalized, \$23 MM in fines assessed and 1,500 people arrested for environmental and safety infractions.
- The “Green China, Beautiful” or “Blue Skies” policy is a major initiative of President Xi and will continue to be disruptive to chemical supply chains on a global basis. In the longer run, it is definitely necessary.
- Chinese vitamin production reached 290,000 MT in 2017, which was 71% of the world’s total output. About 80% went into feed products.
- There are 15-18 new vitamin entrants scheduled to enter the market between 2018-2020 which could bring some price relief in some markets.
- Chinese GDP growth remained at 6.8% in 2017, which was better than expected. This is three times the U.S. growth rate.
- **The Chinese yuan has been falling lately and there is speculation that it may be a move toward devaluation as a response to the trade war.** U.S. Gov’t Treasury bond sales could also come into play since China is a major holder. We could be looking at a currency war as a second front.
- The Chinese stock market is down 15.5% so far in 2018.

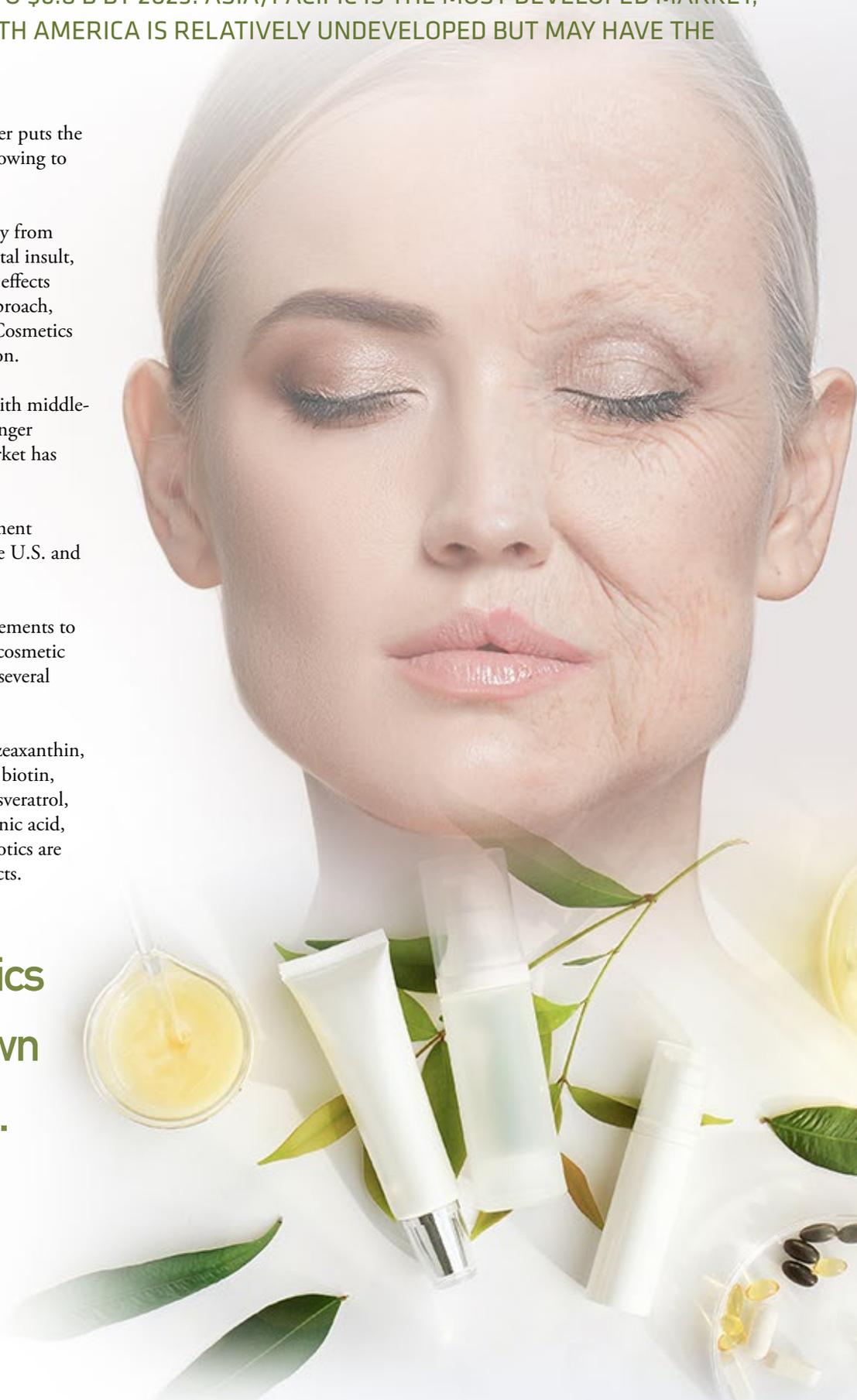
NUTRICOSMETICS

FROST & SULLIVAN ESTIMATES THE TOTAL GLOBAL INGESTIBLE BEAUTY SUPPLEMENT MARKET

AT \$3.5 B IN 2017, GROWING TO \$6.8 B BY 2025. ASIA/PACIFIC IS THE MOST DEVELOPED MARKET, WITH EUROPE SECOND. NORTH AMERICA IS RELATIVELY UNDEVELOPED BUT MAY HAVE THE BEST GROWTH POTENTIAL.

- Global Industry Analysts on the other puts the market at \$3.5 B overall in 2016, growing to \$7.5 B by 2020.
- The positioning behind these “beauty from within” products is that environmental insult, lifestyle considerations, diet and the effects of aging require an “Inside-Out” approach, especially in regard to skin health. Cosmetics just cover up problems by comparison.
- The message is resonating not just with middle-aged women, as in the past, but younger consumers of both genders. The market has grown 40% since 2012.
- Nutri-cosmetics were 2% of supplement product launches in 2017: 1% in the U.S. and 3% in Asia.
- Avon has added Espira beauty supplements to its line and it is expected that other cosmetic companies will follow over the next several years.
- Botanical extracts, lycopene, lutein/zeaxanthin, phytoene, phytofluene, astaxanthin, biotin, vitamin C, vitamin E, panthenol, resveratrol, green tea extract, curcumin, hyaluronic acid, collagen, coenzyme Q-10 and probiotics are common ingredients in these products.

The nutricosmetics market has grown 40% since 2012.



PET PRODUCTS

GLOBAL PET CARE SALES ROSE 4.7% TO HIT \$109 B IN 2017. IT IS PROJECTED TO BE \$117 B BY 2021 WITH NORTH AMERICA

REPRESENTING 42% OF THE MARKET.

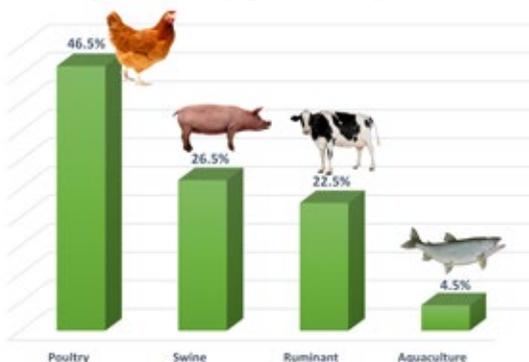
- U.S. pet food sales now exceed \$30 B with Mars, Nestle, Smucker's, Colgate and GMI dominating the industry. The growth rate is more than double the rate of their mainline CPG products.
- GMI recently acquired Blue Buffalo for \$8B, a premium brand in this space. Premium products have been growing the fastest.
- 68% of Americans owned a pet in 2017, up from 58% in 1998. **The pet population in the U.S. was 168 MM in 2017. Many younger consumers see them as child substitutes and treat them accordingly.**
- Pet foods are looking more like human-grade products from an ingredient standpoint. Clean label, non-GMO, gluten-free and health claims resemble the functional foods of their "pet parents".
- About 20% of new product launches in 2017 were gluten-free and some were vegan, and 80-90% of new products had a health positioning. The U.S. were behind 37% of new product launches in 2017
- The U.S. pet supplement market is \$600 MM in 2017, up 4%. Joint health supplements represent 39% of the total. 38% of Millennials buy pet supplements. Functional treats were \$4.4 B in addition, having grown 29% since 2012.

ANIMAL FEED INDUSTRY

THE OVERALL ANIMAL FEED INDUSTRY GREW 2.6% TO 1.07 BILLION MT, WORTH \$430B IN 2017. CHINA OVERALL IS THE TOP FEED PRODUCER AT 187.2 MILLION MT AND THE U.S. IS NUMBER TWO AT 169.2 MILLION MT.

- **The USDA recently predicted that feed grains would remain low in cost 2018-27** even as the developing world and China ramps up livestock production and aquaculture to provide the protein needs of their increasing populations.

- Feed production *by species* on a global basis:



- Feed production *by region* was:
 - o Asia/Pacific 34%
 - o North America 22%
 - o Latin America 16%
 - o Europe/Russia 21%
 - o Mideast/Africa 7%

- **The pork industry is 120 million MT globally**, with China at 44% share. The rapid consolidation of small operations into big integrated units will be a driving force behind future domestic vitamin and amino acid demand in China.
- In the U.S. 10% of farms produce 95% of hogs, but in China 98% of farms have fewer than 50 animals and represent about 35% of total swine production. When this consolidates, vitamin demand will skyrocket.
- Per capita pork consumption has increased 15-fold since 1978 and will continue to grow.
- Beef consumption in Asia is set to rise 45% by 2027.
- **Aquaculture is now a \$163B industry** with China representing about 60% market share. Aquaculture represents over 50% of fish production globally, as wild fisheries are under increasing pressure.
- This has major implications for vitamin markets going forward since about 70% of vitamins are used in feed, which is why we mention it in this paper. Its use really drives the market, especially from China's perspective.

About The Wright Group

During the past 50 years, advances in technology and nutrition science have revolutionized the way products are developed and the methods in which they are manufactured. Despite these countless advances, one constant has remained the same, our commitment to delivering only the highest quality products in the industry.

Headquartered in Crowley, Louisiana USA, The Wright Group is an industry leader in the development of custom nutrient premixes, the microencapsulation of vitamins, minerals and omega-3, as well as, a complete line of direct compressible granulations.

One of The Wright Group's specialties is the hands-on development, formulation and manufacturing of custom nutritional blends or premixes. Our custom SuperBlend® premixes begin as a series of nutritional delivery targets intended to enrich a variety of product applications; including breakfast cereals, functional foods, dairy and non-dairy-based meal replacement beverages, nutrition bars, sports nutrition products, infant formulas and daily multivitamin supplements.

The Wright Group's value-added coating

technology delivers superior performance and stability of essential nutrients for a wide range of multi-functional ingredients. In addition to its innovative design, all SuperCoat® nutrients are rigorously tested throughout the entire production process, and are quality checked to ensure purity, potency and performance.

SuperTab® direct compression granulations combine the physical performance requirements sought by formulators with cost effective solutions sought by product managers. SuperTab® granulations deliver essential nutrients in uniform, free-flowing, granular powders ideal for high speed tableting processes.

Wright operates out of GFSI and FSSC22000 certified facilities. All of The Wright Group's nutrient solutions are thoroughly tested by our in-house laboratory to insure potency and performance, and a Certificate of Analysis accompanies all orders. In addition, a variety of testing options, including microbial analysis, are available.

The Wright Group combines quality, innovation service and value to make sure your product is the best it can be.





FUELING
YOUR
PRODUCTS
ENHANCING
YOUR
BOTTOMLINE.

corporate headquarters

201 Energy Parkway, Ste. 400
Lafayette, LA 70508
Phone: (337) 783-3096
Toll-Free: (800) 201-3096
Fax: (337) 783-3802

Marketing Manager Contact
Marketingmgr@wenrich.com

www.thewrightgroup.net

