



COVER STORY | NUTRACEUTICALS

Employing packaging to energize nutraceuticals



By Jim Butschli, Editor

As medical and functional foods, foodceuticals, beverages, and nutritional supplements continue to blend into new categories, companies use packaging to help market innovative new products.

Reader's Digest's April 2010 cover headline declared, "The Vitamin Scam...Read this before you pop another pill!" Yet, health-conscious North American consumers are buying nutraceutical foods and beverages, as the data shows in the **Euromonitor** (www.euromonitor.com) chart on page 22.

Whether they're called functional or medical foods (see story, page 22) and beverages, nutraceuticals, or nutritional supplements, the lines separating these categories continue to blur as innovative new products and packaging reach store shelves.

Not surprisingly, some of these healthcare-focused products also appeal to consumers' environmental concerns. For example, Santa Cruz, CA-based Rainbow Light Nutritional Systems, a natural nutrition and vitamin maker, is producing bio-balanced products that aim "to make a difference in the health of people, pets, and planet." And this year, Rainbow Light is switching packaging for more than 150 of its vitamin line products to EcoGuard™ bottles from **Alpha Packaging** (www.alphap.com). The opaque bottles are made of 100%

recycled PET.

"For more than 25 years, Rainbow Light has been committed to sustainable, green business practices," says Linda Kahler, president of Rainbow Light. "We're taking a strong leadership position in reducing the vitamin industry's environmental footprint."

A press release on Rainbow Light's transition to the bottles reads,

"EcoGuard vitamin bottles are FDA-approved for safety, with labels made from renewable plant resources and no adhesives, which can disrupt the recycling process. By reusing plastics, EcoGuard vitamin bottles not only reduce the amount of virgin plastic that is generated, they also keep plastic bottles out of landfills, do not deplete fossil fuels, and make good use of the plastics that have been collected for recycling. According to the Environmental Protection Agency, producing new plastic from recycled materials uses only two-thirds of the energy required to manufacture it from virgin raw materials."

Full-body sleeve labels are made from **EarthFirst®** (www.earthfirstpla.com), an environmentally friendly film from Plastic Suppliers, Inc. The film uses Ingeo™ polylactic acid, a natural biopolymer made from renewable resources such as plants, from **NatureWorks, LLC** (www.natureworkslc.com). Graphics are printed by **CL&D Graphics** (www.cldgraphics.com).

Rainbow Light supplements are manufactured and bottled at the company's organic, FDA- and GMP-compliant facility in Sunrise, FL.





Triangular vitamin spice pack

Solid-dose pills, tablets, or liquids aren't the only ways to get your vitamins. Norristown, PA-based VitaminSpice, LLC, for example, is marketing its patent-pending micro-encapsulated vitamins mixed with spices within **Inmecondor s.a.'s** (www.inmecondor.com) triangular-shaped Funnelpack®. Barcelona, Spain-based Inmecondor fills VitaminSpice's products in Barcelona. The company's FM-P100 Universal machine prints, fills, and seals the packs.

Edward Bukstel, president and CEO of VitaminSpice, says, "The Funnelpacks are being used in pizzerias. People can put garlic or parmesan or crushed red pepper on a pizza. Or kids can sprinkle cinnamon from the Funnelpack onto their French toast. So your kids may have just had a slice of pizza or French toast and don't even know they ate a multivitamin. We use high-end ingredients from all over the world, and that's what the consumer tastes, not the vitamins, because they're encapsulated and so small." He says the Funnelpack measures 90 x 74 mm at its base. "It's an isosceles triangle made of

a foil"-based material, he adds.

Bukstel anticipates moving from granular to other products, including organic salad dressings and other condiments. "We are hoping to bring packaging equipment to the United States at a facility to be determined," he says.

VitaminSpice also sells traditional spice bottles with shaker tops, which retail for \$5.99. The price range for the Funnelpack-packaged spice varies depending on the ingredients, from 50 cents to \$12, with product amounts that may range from 200 mg to more than 4 g in weight.

Bukstel describes VitaminSpice as a company that specializes in increasing the nutritional content of foods by blending, whether it's spices or other condiments, with specially prepared vitamins in an all-natural fashion. "What's occurring with the Obama administration and some of their initiatives is that parents and/or nutritionists are concerned about childhood obesity and nutritional contents," he says. "Nutritionists are becoming much more conscious about taste, and food suppliers and manufactur-



ers are more cognizant of making sure that there is increased nutritional value in the products that they make."

Bukstel uses the term "foodceuticals" to describe an emerging category of foods and nutraceutical condiments. He says VitaminSpice is also working with medical schools and elderly care facilities/nursing homes to increase the amount of vitamins and enhance the taste of the food products that these facilities are serving to their patients and their clients. "There are a whole lot of people who do not like to

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NEW MARKETS = NEW COMPETITION

A few years ago, I had the pleasure of speaking to the Consumer Healthcare Products Council in Washington, DC, where there were a lot of "Big Pharma" regulatory people and a host of FDA employees.

The keynote speaker warned the audience: "Your competition is not in the room today. Your competition is Coke and Pepsi and the flavored water people."

For the packagers of pharmaceuticals and medical devices, the competition includes an ever-expanding universe of products that may be referred to as nutraceuticals, functional foods and beverages, dietary

supplements, medical foods, cosmeceuticals, and so on. To better understand what these products are, see story on page 22.

Packaging and labeling implies—and sometime blatantly promises—health claims, but without any FDA verification. Yet they are not unregulated, as legal columnist Eric Greenberg points out on page 37. These packagers do have to follow cGMPs.

Want to see a market emerge? Offer subscriptions for *Healthcare Packaging* to people outside the pharmaceutical and medical device arena.

In the last six months, we have welcomed

some 3,000 new readers to the magazine. We petitioned our circulation audit bureau to recognize these food, beverage, vitamin supplement, and cosmetic readers. They come with titles such as Food Scientist, Nutrition Segment Manager, Health and Wellness Director.

Whether you consider your company a packager of pharmaceuticals, medical devices, nutraceuticals, or biologics, take notice that your competition is becoming more nontraditional, and developing new and blended product segments.

—Jim Chrzan, Publisher

swallow pills,” he says. “So we are looking at a situation where we believe this is going to be very important for increasing the efficacy of the nutritional content for elderly patients.”

Energy drinks in aluminum cans

For years, Woodbury, NY-based AriZona Beverage Co. has employed striking package design and graphics to market its energy and juice drinks. This spring, the company launched AZ Energy in aluminum cans from Rexam (www.rexam.com). Decorated via lithographic printing, the cans stand 6.25 in. high. Rexam also supplies 202-sized ends, or lids. AriZona contracts out several different production plants for hot-filling the beverages.

The 16-oz energy drinks are made with natural juices from fruits and are available in regular and low-carb versions, both of which come in a can decorated with street-art style and a crown to represent AriZona’s Brooklyn roots. Beverages are said to provide a 100% daily value of Vitamins B6, B12, C, and B5, and contain no preservatives and no artificial colors

plays a key role in purchasing decisions for the consumer, and we like to make sure that the outside of our package matches the high quality of what is within.”

Vitamin-enhanced water in PET

At press time, AriZona Beverage announced the launch of RESCUE Water, which was launched on the East Coast and was scheduled for availability nationwide this spring. PET bottles are injection blow-molded by Constar (www.constar.net).

AriZona says the 20.5-oz bottles use Constar’s DiamondClear oxygen scavenging technology that protects the product within from oxygen, which can degrade the quality of the beverage and impair the nutrients inside.

Multi-Color Corp. (www.multicolorcorp.com) gravure-prints in seven colors the full-body shrink labels on 50-micron polyvinyl chloride film. The injection-molded polypropylene closures are supplied by **Silgan White**



active fluid replacement and also help balance nutrient absorption

in the body. Additionally, each flavor has its very own function. Each of the four brightly colored bottles corresponds with a unique purpose, but the entire line features AriZona’s green tea extract for an antioxidant-packed base.

Twinlab’s laboratories created advanced vitamin formulas for each variety in the AriZona RESCUE Water line:

- L-Theanine, green tea extract and lemon balm extract in the Berry Blend work in harmony to help the body deal with daily stressors and relax.
- The Lemon-Lime formula is designed to provide a boost in energy. With a blend of guarana extract, green tea extract, and natural caffeine, this beverage intends to enhance endurance and fuel focus.
- The Orange Citrus blend is meant to help the body to detox by supporting liver function and replenishing the body with necessary nutrients like Alpha Lipoic Acid, green tea extract, milk thistle extract, and L-Glutathione.

By combating free radicals with a blend of Arabinogalactin, green tea extract, and elderberry extract, the Pomegranate Punch is designed to support immunity.

RESCUE Water contains no artificial colors or flavors, and is sweetened with Reb A, a natural sweetener that comes from Stevia plants and contains zero calories, so each beverage boasts only 25 calories per

NUTRACEUTICALS

Nutritional bottle production commences

Alpha Packaging (www.alphap.com), a manufacturer of plastic bottles and jars for the nutritional, pharmaceutical, and personal care markets, opened its first European production facility in Roosendaal, The Netherlands, in April. In addition to moving North American

equipment to Europe, Alpha Packaging has also acquired the assets of **SmartPET** (www.smartpet.nl/news), a Netherlands-based blow molder of PET bottles and jars. Alpha has begun moving the SmartPET machines and molds to the new facility.

or flavors. AZ Energy will begin national rollout immediately with a suggested retail price of \$1.99 per can.

Jim Gunther, the company’s head of graphics and design, says, “Packaging is extremely important to AriZona. Since AriZona does not do traditional print, Web, or broadcast advertising for its products, we pride ourselves on using cutting-edge packaging that not only looks great but also protects the quality of the ingredients/product within. We know that packaging

Cap (www.silganwhitecap.com). Shelf life is 18 months unopened, seven to 10 days refrigerated after the beverage is opened.

Gunther explains, “The bottle design is very unique in that many PET bottles have a lot of ribs and panels. The AriZona RESCUE Water PET has none. In fact, the panel-less X4 technology for hot-fill bottles is patented by Constar, so it is brand new.”

The line of four enhanced waters contains a proprietary blend of Twinlab vitamins and antioxidants that aim to help increase

8-oz serving. Beverage prices range from \$1.39 to \$1.89 per bottle. They are also sold in 24 packs.

Tenaya launches high-acid, shelf-stable beverages in aseptic PET bottles

Tenaya LLC, Chicago, has introduced MADE beverages in Ball Corp.'s (www.ball.com) 16-oz PET bottles with Plasmax® barrier coating from KHS (www.khsplasmax.com). MADE beverages are filled at KanPak, LLC (www.kanpak.us), Arkansas City, KS, and are reportedly among the first high-acid, shelf-stable beverages aseptically filled in PET bottles in North America.

"The entire Tenaya team shares a philosophy and a vision about how to develop products that are better for the earth, good for the company, and good for people, and we do our part to support the overall health of the environment," says Charley Snell, Tenaya founder and former executive of Nestlé USA.

"We strive for environmentally friendly production and packaging. To that end, our current products are uniquely created and packaged aseptically to allow for shelf-stable storage with no need for preservatives or refrigeration, reducing the environmental impact of shipping and storage. We chose Ball's Plasmax-coated PET bottles because the bottles are 100-percent recyclable and widely accepted for recycling, and the Plasmax barrier is highly compatible with the aseptic filling process," Snell adds.

A Ball press release notes, "The aseptically packaged beverage can be safely shipped and stored for up to six months, without preservatives or refrigeration."

According to Tenaya, MADE is an organic, all-natural of beverages that combines green tea and fruit juices with refreshing floral and herbal extracts. It is available in eight varieties: Strawberry Lemonade, Pomegranate Mojito, Blackberry Peach, Cranberry Limeade, Strawberry Mojito, Pomegranate Lemonade, Raspberry Peach and Blueberry Lemonade.

Ball describes Plasmax as "an ultra-thin, transparent, silicon-oxide coating technology that protects the beverage inside the bottle from oxygen ingress and also prevents the PET from absorbing the sterilizing agent used inside of the bottles as part of the aseptic filling process."

[HCP]



Test	Project Status
SHOCK & VIBE	ON TIME
ACCELERATED AGING	ON TIME
SEAL STRENGTH TEST	ON TIME
BURST STRENGTH	ON TIME
DYE LEAK TEST	ON TIME
BUBBLE LEAK TEST	ON TIME
TENSILE TEST	ON TIME
PUNCTURE RESIST	ON TIME
ADHESIVE TESTING	ON TIME

DDL. A test lab with the capacity to meet the most demanding schedules.

DDL has been a national leader and innovator in the testing industry since 1990. Our certified packaging engineers and three full-service testing laboratories will provide the expertise to validate the efficacy of your packaging systems. DDL has a full service dynamic and integrity lab in all locations along with chamber space ranging from 1 cu. ft. to 1,000 cu. ft. per chamber. DDL's location in Eden Prairie, MN has 55 chambers alone. Choosing a test lab is an important decision, so why not choose one that is tested and proven?



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