

Formulating Kids' Products

The days of formulating products for children using just bright colors and shapes are gone. Today's sophisticated children are attracted to foods that feature good taste, ethnic elements, healthfulness, and, more importantly, they need to be approved by mom and dad.

Lucinda Wisniewski, The National Food Lab

In the past, product developers had a simpler set of considerations for the design of children's products. The drivers of acceptability were primarily strong, artificial-type flavorings and bright, artificial colors, perhaps integrated with some sort of fun form. Today, the hurdles for creating a successful children's food and beverage item are much higher; the demands are more complex. Building a children's product is as challenging as any adult product, because of two main factors: parents' strong need to approve the foods and beverages their children consume, and the increased sophistication and diversity of the children themselves.

Parents as Health-conscious Gatekeepers

With childhood obesity and related diseases a major concern, new product development teams need to take a thoughtful and responsible approach to children's products. Concerned and conscientious parents want to offer more healthful alternatives to what has been available to children in the past. This movement inspires a deeper examination of ingredient and flavoring options that should be incorporated into a children's food or beverage product.

For example, there are many sweeteners to consider. While the non-nutritive sweeteners are effective in reducing the sugar content in food, which would seem to be a logical choice in order to address the diabetes concern, many parents avoid these ingredients, because they are perceived as "not natural." They would prefer to have their children eat naturally derived sweeteners, such as honey, cane syrup

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The traditional tenet that all children's products need to be sweet should be challenged; they should be encouraged to experiment with many combinations.

or simply lower levels of sugar (sucrose). Increased scrutiny of nutrition and ingredient labels by the parents as gatekeepers often suggests the use of more natural colorants and flavorings and/or more whole grains and other healthful ingredients, such as antioxidants.

The challenge is in determining how much "healthier" a children's product needs to be. What ingredients are critical in parents allowing their children to eat the food, while still delivering a "fun" factor that delights the child consumer? The balance is in delivering a food that has enough healthful benefits to satisfy the parent, but with enough indulgent factors to turn on the kids. Is it all right to have an artificially colored blue food, if it is delivering a full day's serving of vitamin C? Is it reasonable to allow some level of healthy fat in a product, if it has a simple label with all-natural ingredients?

The trade-offs that parents make as the primary purchasers of food are complicated and change with consumer opinion about particular ingredients (e.g., high-fructose corn syrup) and knowledge of nutritional information. It is critical to check in with parents at the early development stage to uncover what the purchase considerations are for a given food concept, particularly around the nature and amount of certain ingredients and nutrients. Parents' willingness to

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Children have an increased awareness—either through their parents, schooling and/or marketing of the foods they consume—of food benefits, as well as the “bad” foods they should avoid or minimize.

Children are More Experienced and Discriminating

The “bells and whistles” that used to attract children to a food are still relevant to certain age groups of children, such as the interactive “fun factor” (e.g., bright colors and strong candy-like flavors). However, many more characteristics can be added to the list of those that influence children’s acceptance of a new food product.

make trade-offs depends on the intended meal occasion for the concept and anticipated frequency of consumption by their children. For example, if the food is to be consumed daily as a between-meal snack or an all-day beverage, the product usually needs to conform to more rigorous expectations for nutrition, much more so than for a food that will serve as an infrequent treat.

The U.S. children’s population is highly diverse, and they are exposed to ethnic cuisines at earlier ages. Kids are more open to ethnic-inspired ingredients, such as seaweed and salsa, based on their experimentation with different foods. They are also getting “up-scaled” to more sophisticated flavor profiles through consumption of premium smoothies, coffee beverages and ice creams.

Omegas and Kids



A search on Google for DHA children’s products produces tens of thousands of websites and numerous dietary supplements. For example, Hero Nutritional’s website notes that its Yummi Bear DHA contains 340mg fish oil (tuna), which provides 75mg DHA, 15mg EPA and 15mg of other omega-3s, and a “unique blend of ingredients supports healthy brain development, visual and heart function.”

Among Americans, omega-3 fatty acids’ reputation is perhaps best established for adult cardiovascular health. However, there is less awareness of their importance for children’s nutrition, with greatest attention on infant health.

DHA (an omega-3) and AA (an omega-6) are the major fatty acids of the brain, and the DHA content of the retina is very high. While Western adult diets are considered too high in omega-6 vs. omega-3 fatty acids, AA is crucial for infants. Vision and

cognition mature rapidly in the first few years of life, and most infant formulas in the U.S. and Canada are now supplemented with these fatty acid, says Eric L. Lien, Ph.D., Department of Food Science and Human Nutrition at the University of Illinois. The World Association of Perinatal Medicine recommends that infant formulas contain 0.2-0.5% of total lipid of DHA, and there should be at least as much AA as DHA.

For older children, an extensively quoted March 5, 2009, Reuters press release notes The American Dietician Association and the Dieticians of Canada recommend an intake of 351mg of the omega-3s EPA/DHA per day; the Institute of Medicine recommends 90mg of EPA/DHA per day. Even at this low level, North American children’s diets are thought to be deficient in these omega-3s, with possible negative consequences for cognitive health. For more information, type “North American Children are Omega-3 Deficient and may be at risk for Suboptimal Health” into Google.

— Claudia D. O’Donnell, Chief Editor

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While younger kids tend to look for the more traditional color and flavor impact served in a fun and simple format, pre-teens and teens have different drivers, such as energy or weight loss.

Because many children today consume a significant amount of fresh fruits and vegetables, their concept of what a strawberry-flavored product should be has changed, compared to the strawberry profile of the past. Product developers can no longer assume that a berry flavor used in a confection is the same flavor that would resonate with children in a beverage or a yogurt. The general concept is that flavorists do not necessarily need to “dumb down” flavor profiles for children’s products, but rather explore a range of executions that may be more appealing to maturing tastebuds. The traditional tenet that all children’s products need to be sweet should be challenged, to experiment with combinations of all the main tastes. A mocha-flavored product, for example, given the exposure of kids to iced mocha beverages, might be more of a consideration now, playing the balance between sweet and bitter.

Children have an increased awareness—either through their parents, schooling and/or marketing of the foods they consume—of benefits being delivered in foods, and the “bad actors” they should avoid or minimize. Many kids make the connection that some ingredients enhance energy and are attracted to that aspect of food. Others are starting to read nutrition labels and to recognize what is high in sugar and fat. As children open their eyes to food ingredients and assimilate opinions and information about food from the outside world, their voices will become more prominent in driving the formulation of foods.

As one goes deeper into understanding the children’s demographic, the stratification of desirables by age group and gender cannot be overlooked. While younger kids tend to look for the more traditional color and flavor impact served in a fun and simple form, pre-teens and teens have different drivers, such as energy or weight loss. Boys and girls also skew differently in terms of flavor preferences and formats. The more targeted a children’s demographic is, the better developers are able to formulate, based on the particularities of that age group.

Research to Gain More Understanding

Since formulating children’s products has become more complex, creative approaches are needed to reach kids directly to gain their perspective on concepts and prototypes. Whether it be in the home or through a central location test, children enjoy giving their opinions on new foods. In designing the research, testers need to consider those factors that influence how participative children will be, such as environment, number and mix of other children in a group setting, and wording used in concepts. Given the parent gatekeeper situation discussed above, it is wise to incorporate the adults’ opinions in conjunction with their offsprings’ to provide a more holistic picture of the potential for purchase and consumption.

In summary, formulating and delivering children’s products successfully to the marketplace requires approaches that integrate a broad spectrum of considerations. The challenge at hand is just as complex, and perhaps more complicated, than creating products for adults. However, the rewards can be great, as manufacturers can build awareness of products and brands that will grow with the children. **PF**



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