

NOV - 2 2006



November 3, 2006

Patricia Daniels
Director, Supplemental Food Programs Division
Food and Nutrition Service, U. S. Department of Agriculture
3101 Park Center Drive, Room 528
Alexandria, VA 22302

RE: Docket ID Number 0584-AD77, WIC Food Packages Proposed Rule

Dear Ms. Daniels:

The United Fresh Produce Association (United Fresh) is pleased to submit comments on behalf of our members regarding the United States Department of Agriculture's WIC Food Packages Proposed Rule.

United Fresh represents the interests of more than 1,100 member companies throughout the global, fresh produce supply chain, including family-owned, private and publicly traded businesses as well as regional, national and international companies. The association was founded in 1904 to represent the produce industry, and recently took the name United Fresh as a result of the 2006 merger of the United Fresh Fruit & Vegetable Association and the International Fresh-cut Produce Association.

United Fresh **strongly supports the WIC Food Packages Proposed Rule** calling for the addition of fresh fruits and vegetables to the WIC Food Packages based on nutrition science and current dietary guidance. We commend the USDA for proposing important changes to the WIC Food Packages that are consistent with the *2005 Dietary Guidelines for Americans* and align with the American Academy of Pediatrics infant feeding recommendations. We applaud the USDA for providing 8.2 million WIC moms, infants and young children with vouchers to purchase fresh fruits and vegetables and baby-food fruits and vegetables which will increase their consumption of fruits and vegetables, improve their overall nutrient intake and result in healthier eating habits now and in the future. After 32 years, we salute USDA for proposing a rule that reflects today's scientific knowledge, and provides fruits and vegetables to WIC Moms and kids.

Addition of Fruits and Vegetables to WIC is Evidence-Based

The alignment of the WIC Food Package with nutrition science and current dietary guidance is long overdue. At the time the WIC program was established, there was no systematic process for the development and revision of science-based dietary guidance for the U.S. population. However, since 1980 the USDA and DHHS have jointly issued Dietary Guidelines for Americans every 5 years that provide authoritative and consistent guidelines on diet and health. According to Public Law 101-445 (1990), the Dietary Guidelines form the basis of federal food, nutrition education and information program, including the WIC program. This means that both the food and the nutrition education provided by the WIC program should be consistent with the Dietary Guidelines.

Based on the latest scientific evidence, the 2005 Dietary Guidelines for Americans recommends 5 to 13 servings of fruits and vegetables a day (based on age and gender). For young children the recommendation is 4-6 servings of fruits and vegetables a day and for women in their childbearing years 9-11 servings a day is recommended. Current consumption patterns for both women and young children fall far below the recommended intake for fruits and vegetables. Most Americans eat less than half of the recommended amount of fruits and vegetables each day. Scientific evidence and current research, used to formulate the 2005 Dietary Guidelines, clearly demonstrates that a diet rich in fruits and vegetables reduces risk of high blood pressure, heart disease, type 2 diabetes, and certain cancers, and helps maintain ideal body weight. Therefore, the 2005 Dietary Guidelines explicitly emphasize that all Americans need to increase their consumption of fruits and vegetables.

Additionally, childhood obesity is at epidemic rates in the United States and given that 25% of all young children in the U.S. participate in the WIC program, every effort should be made to increase these children's access to healthy, low-calorie fresh fruits and vegetables through WIC.

Currently, WIC Food Packages do not include fruits and vegetables. The only exception is the addition of carrots (two pounds) to the food package for fully breastfeeding mothers. Of the 8.2 million WIC participants nationally, only 141,000 fully-breastfeeding WIC Moms (est. FY'07) receive even this minimal amount of vegetables each month.

The IOM recognized the need to add fruits and vegetables to WIC and noted that families of all income levels should provide more fruits and vegetables to their children in ways that build healthy eating patterns. To help low-income families accomplish this goal, the IOM recommended that WIC food packages include baby food fruits and vegetables for older infants, cash-value vouchers for \$8/month for children and cash-value vouchers for \$10/month for women. The cash-value vouchers should be used to purchase fresh fruits and vegetables and participants could choose from a wide variety of produce. The IOM noted that the addition of fruits and vegetables to WIC food packages would improve the overall nutrient adequacy of the diet, provide greater consistency with the Dietary Guidelines and increase the appeal to culturally diverse populations.

Closely following the IOM's recommendation, USDA's Proposed Rule adds fruits and vegetables to all WIC food packages starting with infants over 6 months of age. The addition of infant fruits and vegetables to Food Package 2 will help infants begin to develop a taste for a wide variety of fruits and vegetables conducive to good health. The addition of a cash-value voucher for fruits and vegetables for young children and women will help them adopt healthier eating habits that will promote good health and contribute to a healthy body weight. The proposal reaffirms that the addition of fruits and vegetable to WIC Food Packages provides greater consistency with the Dietary Guidelines, improves nutrient adequacy and increases appeal to culturally diverse populations.

Emphasis on Priority Nutrients and Priority Food Groups

With the goal of improving the nutrition of WIC participants, the IOM identified the nutrients and food groups of highest priority, either because of potential inadequacies or excesses. For children 1-4 years of age and pregnant/lactating women, priority nutrients identified as lacking included fiber and potassium. Priority Food Groups found lacking for children ages 2-4 years and women in childbearing years included dark green leafy vegetables, deep yellow vegetables, and fruit.

The IOM's recommendation to add fruits and vegetables to WIC food packages: (1) increases two of the priority nutrients - fiber and potassium - that were previously low in

diets; and (2) adds a priority food group – fruits and vegetables. Compared with current WIC food packages, the suggested revised packages will result in overall improvement in the nutrient adequacy of the diet.

The USDA proposal supports the recommendation of the IOM and notes that the addition of fruits and vegetables supports improved nutrient consumption and compared to current food packages, the revised food packages will provide greater amounts of nearly all nutrients of concern identified by the IOM.

Adding Fresh Fruits and Vegetables to WIC Works

To date, there have been three pilot studies in which cash-value vouchers for fresh fruits and vegetables have been provided to WIC participants. All three demonstration projects had very positive results. These WIC Fruit and Vegetable demonstration projects took place in South Central Los Angeles, California (2001-2003), New York State (2006) and Calaveras County, California (2001- ongoing). The South Central Los Angeles project provided a \$10/week voucher per WIC family, the New York State project provided a \$5/month voucher for WIC Children and the Calaveras County projects provides a \$5/month voucher for each WIC participant.

These studies demonstrated that:

- Adding fresh fruits and vegetables to WIC works and has been working for 5 years in the Calaveras County WIC Program.
- WIC Moms purchased a wide variety of nutrient dense fruits and vegetables with the vouchers provided. Tables 1 and 2 illustrate the top 20 fruits and top 20 vegetables purchased by WIC Moms in South Central Los Angeles and Calaveras Country, respectively.
- WIC Moms purchased fresh fruit for snacks for their children and vegetables for dinner.
- WIC participants increased their consumption of fruits and vegetables. (Note: Only the South Central Los Angeles study analyzed individual dietary data.)
- The fruit/vegetable vouchers were highly acceptable to WIC Moms of various ethnic and cultural backgrounds.
- Redemption rates for the fruit and vegetable voucher were above 90%.
- The fruit and vegetable voucher worked well in a variety retail settings including supermarkets, small independent markets and “Mom and Pop” stores.

Adding fresh fruits and vegetables to WIC works and has been working for 5 years in the Calaveras County WIC Program.

As the Department proceeds with the rulemaking process, we also ask that you consider following recommendations:

1. Follow Institute of Medicine’s Recommendations for \$10 & \$8 Fruit and Vegetable Vouchers

Given that WIC participants – and over 75% of all Americans --consume less than half of the fruits and vegetables recommended in the *2005 Dietary Guidelines for Americans*, we strongly encourage USDA to follow the recommendations of the Institute of Medicine’s (IOM) Report: “WIC Food Packages: Time for a Change” and provide WIC Moms and children with a \$10/month and \$8/month, respectively, cash-value voucher for fruits and vegetables. We do not support USDA reducing by \$2/month the cash-value of the fruit and vegetable voucher, as proposed in Section V. subsection E (3) “Maximum Monthly Allowances.”

Because of the importance of doubling fruit and vegetable consumption for all Americans, the vulnerable WIC population should not be short changed. For children, the \$2 reduction proposed by USDA represents a 25% reduction in the value of the fruit and vegetable voucher, which translates into 25% less fruits and vegetables available for these children to eat. An important objective of the IOM was to ensure that WIC food packages provide at least one additional serving of fruit or vegetable each day. The \$10 and \$8/month vouchers, as recommended by the IOM, will help WIC Moms and kids meet this objective.

While we appreciate the financial challenges in funding the overall WIC program, we strongly believe that WIC Moms and their young children should not be short-changed when it comes to this critical health need, and deserve the full amount of fruits and vegetables as recommended by the IOM --\$10/month for women and \$8/month for children.

2. Allow All Fresh Fruits and Vegetables

To maximize choice for WIC Moms and kids, we strongly recommend that all fresh fruits and vegetables, including fresh white potatoes, be eligible for purchase using the fruit and vegetable voucher. USDA should not exclude a specific type (i.e., fresh white potatoes) of fresh fruit or vegetable from this category as proposed in Section V. Subsection E (2) "Restrictions on Authorized Fruits and Vegetables."

As discussed above, the three WIC Fruit and Vegetable Projects conducted in California and New York State successfully demonstrated that WIC Moms purchase a wide variety of nutrient dense fresh fruits and vegetables when provided with a voucher. Tables 1 and 2 attached illustrating the wide variety of fresh fruits and vegetables actually purchased by WIC Moms in the South Central Los Angeles and Calaveras County Projects. WIC Moms make wise choices when allowed to make their own purchase decisions.

Additionally, fresh white potatoes are high in vitamin C, potassium and low in calories, and offer a cost-effective means for WIC moms to include these nutrients in their diet. The exclusion of one specific type of fresh vegetable sends the wrong message to WIC Moms, suggesting that fresh white potatoes are not a healthy choice. It is important to note that including fresh white potatoes in the WIC program can also help moms and kids better understand the difference in nutritional profile of fresh white potatoes from French fries, thus enhancing long-term nutrition education.

Finally, excluding fresh white potatoes could make it potentially more difficult for supermarket cashiers to easily handle the fruit/vegetable vouchers at check-out.

3. State WIC Agencies Should Not Have Authority to Limit Fruit and Vegetable Choices

The IOM recommended that state WIC agencies aim for the maximum variety and choices in allowing food selection by participants. WIC participants should be able to choose from a wide variety of fruits and vegetables to accommodate various cultural and personal preferences, food allergies, home storage and cooking facilities and ability. It is critically important that state and local WIC agencies allow WIC moms and kids to have maximum choice in selecting fruits and vegetables to purchase using the cash-value vouchers. Therefore, USDA should not give State WIC agencies the authority to restrict or limit choice in any way and especially not to only two fruits and two vegetables, as proposed in Section V. Subsection R "Flexibility and Variety."

As the data from the two California WIC Fruit and Vegetable Pilot Projects clearly illustrates, WIC moms choose a wide variety of nutrient dense fruits and vegetable when provided with a voucher to use in a supermarket produce department. Furthermore, since it is the ..."USDA's expectation that more than two varieties each of fruits and vegetables be authorized by State agencies and encourages States to offer participants the widest variety of fruit and vegetable options practicable"...then state agencies should not be allowed or authorized to restrict choice.

4. State WIC Agencies Should Require Small Vendors Offer Variety

The addition of fruits and vegetables to WIC Food Packages has the potential to dramatically increase access to fresh fruits and vegetables in inner cities and remote areas of the country that lack supermarkets. Therefore, State WIC agencies should require small vendors to stock more than ..."at least two varieties of fruits and vegetables" as proposed in the amendment to 7 CFR Part 246.12 (i) "Minimum Variety and Quantity of Supplemental Foods." State WIC agencies should be required to set small vendor stocking requirements that at least 10 fresh fruit and vegetable options be available, and ideally encourage small vendors to offer the widest selection of fruits and vegetables possible and to expand variety over time in response to consumer demand.

The Calaveras County WIC Fruit and Vegetable Project, now in its 5th year, best illustrates the potential of WIC to increase access to fresh fruits and vegetables in geographic areas that do not have supermarkets. In 2001 at the beginning of the project several of the small "Mom and Pop stores" sold only fresh potatoes and onions; now they offer approximately 20 different types of fresh fruits and vegetables for sale. Simply providing a fresh fruit and vegetable voucher to the Calaveras County WIC population resulted in this dramatic change. Based on this experience, the California WIC Association has noted that they expect the new WIC food packages to..." revolutionize access to fresh fruits and vegetables throughout the country."

5. Cash-Value Vouchers for Fresh Fruits and Vegetables Work in Retail

Providing WIC Moms and kids with a cash-value voucher for fresh fruits and vegetable allows them maximum choice to select fresh fruits and vegetables to meet their personal and cultural preferences. Additionally, cash-value vouchers have been demonstrated to work effectively in a variety of vendor settings ranging from supermarkets to small "Mom and Pop" stores. Therefore, we support the proposal, Section V. Subsection E (3a) "Maximum Monthly Allowances – Fresh Produce Option," to provide cash-value fruit and vegetable vouchers to WIC Moms and children.

Because fresh fruits and vegetables are sold by weight and prices vary by season, across regions and stores, they can not be prescribed in quantity terms and control overall cost of the WIC food packages. The recommendation to use cash-value vouchers for fresh fruits and vegetables is based on the recommendation of the IOM, which was informed by input received from vendors and the results of the two WIC Fruit and Vegetable Demonstration Projects in California. In both the South Central Los Angeles study and the ongoing Calaveras County project, WIC Moms found the cash-value vouchers easy to use.

Also noteworthy, was the ease with which supermarkets, small independent markets and "Mom and Pop" stores handled the fruit and vegetable cash-value vouchers in these projects. The South Central Los Angeles study allowed WIC Moms to redeem their vouchers at three Ralph's **Food 4 Less** (large warehouse-type supermarkets with more than 500+ produce items) stores. Ralph's corporate executives have noted that they trained their cashiers using a one-page instruction guide and incurred no costs in training store-level

staff. The redemption rate for the cash-value vouchers was 91% in the South Central Los Angeles study. Calaveras County by comparison is a large rural county in the foothills of Northern California with only one traditional supermarket **Save Mart**, nine small grocery markets and three "Mom and Pop" stores. The cash-value voucher for fresh fruits and vegetables worked well in all of these vendor settings as well.

6. Maintain Proposed Prohibition Against Categorical Nutrition Tailoring

According to the IOM, the proposed revised food packages have the potential to address current nutrient inadequacies and excesses; discrepancies between dietary intake and dietary guidance; and current and future health related problems in the WIC population. Additionally, the IOM recommends that the revised food packages be provided to each participant in full, except to the extent that the packages are tailored to needs of individual WIC participants. Therefore, we support USDA's proposal as noted in Section V. Subsection T (2), "General Provisions that Affect All WIC Food Packages" that prohibits categorical nutrition tailoring, but continues to allow individual nutrition tailoring. We agree with this policy recommendation and urge USDA to maintain the prohibition against categorical nutrition tailoring.

Currently, categorical nutrition tailoring has given State WIC agencies the authority to make across the board cuts in specific items in the food packages. We do not believe State WIC agencies should have this authority; specifically because such authority might result in State WIC agencies reducing the cash-value of the fruit and vegetable voucher to be offered in the new WIC food packages. Categorical nutrition tailoring is no longer necessary and could be detrimental. We commend USDA for building in protections that safeguard the nutritional value of the new food packages for all participants by prohibiting state level cuts to specific items in the food package.

7. Annual COLA for Fruit and Vegetable Vouchers

The value of the fruit and vegetable voucher must keep pace with inflation. Without this requirement the vouchers would be worth less and buy smaller amounts of fruits and vegetables each year as inflation increases. As currently proposed in Section V. Subsection E (3) "Maximum Monthly Allowances," USDA would have the option to make COLA adjustments. In order to keep pace with inflation and maintain the purchasing value of the voucher, the rule should require that the value of the fruit and vegetable vouchers reflect a cost of living adjustment annually. The value of the fruit and vegetable voucher should be increased as the Bureau of Labor Statistics' Consumer Price Index (CPI) for Fresh Fruits and Vegetables increases. The final rule should require USDA to make COLA adjustments in the cash-value fruit and vegetable voucher just as it adjusts the value of all other food items in the WIC food packages.

8. Maintain Emphasis on Fresh Fruits and Vegetables

The IOM states throughout its report that the emphasis and priority should be on providing WIC Moms and kids with fresh fruits and vegetables. We applaud this emphasis on fresh and request that USDA maintain this emphasis in the final rule. Today, most supermarkets have a tremendous variety, in many cases more than 400, of fresh fruits and vegetables for consumers to select from. WIC moms should be encouraged to shop in the produce department to give them maximum choice. At present, WIC packages provide no reason for WIC moms to even walk into the produce department. With the new vouchers and emphasis on fresh, WIC Moms will be better able to see, touch, taste and purchase fresh produce, even beyond the voucher limit, using their own resources to better meet dietary

goals. We also agree that all forms of fresh or processed (canned, frozen or dried) fruits and vegetables should be eligible for purchase with the voucher.

9. WIC Food Package Should Support Nutrition Education

The addition of fresh fruits and vegetables to WIC Food Packages will reinforce nutrition education messages already provided to WIC moms. Finally, state and local WIC agencies will be able to "Walk the Talk" by providing a food package that aligns with the 2005 Dietary Guidelines and emphasizes increased consumption of fruits and vegetables. WIC agencies should be encouraged to emphasize nutrition education activities that will help WIC moms select the widest variety of fresh fruits and vegetables.

10. Issue Final WIC Food Packages Rule by Spring of 2007.

The 2004 Child Nutrition and WIC Reauthorization Act mandated that USDA issue a final rule no later than 18 months after the publication of the IOM's recommendations and report. That statutory deadline is the end of November 2006. Therefore, we strongly encourage USDA to issue the final rule (interim final) as soon as possible, and no later than Spring of 2007. After much excitement and anticipation following the publication of the IOM report and now the USDA proposed rule, State and local WIC agencies want to move forward with updating the WIC Food Packages. It's critical that USDA move expeditiously towards final rulemaking. A Spring 2007 final rule means that WIC Moms and kids will finally receive updated WIC food packages, including fresh fruits and vegetables, by the Spring of 2008.

Conclusion

United Fresh commends USDA for proposing important changes to the WIC Food Packages that align with the *2005 Dietary Guidelines for Americans* and add include fresh fruits and vegetables in WIC for the first time. We urge USDA to strengthen the final rule to include all fresh fruits and vegetables, provide \$10/month and \$8/month cash-value vouchers, respectively, for WIC Moms and children, insist that state agencies offer participants maximize choice and require small vendors to offer variety, maintain the safeguards that protect the integrity of the food package, and provide COLA adjustments for the fruit/vegetable voucher.

The addition of fresh fruits and vegetables to WIC will increase consumption, improve nutrient intake and result in healthier eating habits now and in the future.

Thank you for the opportunity to contribute to shaping WIC Food Packages that will provide important health benefits for WIC Moms and kids. Please contact us if you have questions about any of our comments.

Sincerely,

Lorelei DiSogra, Ed D, RD
Vice President of Nutrition and Health

Table 1

**Fresh Fruits & Vegetables Purchased by
South Central Los Angeles WIC Participants**

Top 20 Fruits

Banana	Melons
Apples	Pineapples
Oranges	Plums
Grapes	Mangos
Pears	Nectarines
Watermelons	Lemons
Peaches	Apricots
Strawberries	Cherries
Cantaloupes	Limes
Papayas	Tangerines

Top 20 Vegetables

Carrots	Cabbages
Tomatoes	Cucumbers
Lettuce	Green beans
Broccoli	Corn
Potatoes	Avocados
Winter squash	Chilies
Onions	Cilantro
Spinach	Celery
Zucchini	Bell peppers
Cauliflower	Chayote

Source: Dr. Dena Herman's presentation "The WIC Fruit and Vegetable Evaluation Study - South Central Los Angeles." Presented at "Healthy Choices - Making Fruits and Vegetables Work in WIC" Congressional Briefing, Dec 6, 2005, Washington, D.C.

Table 2

**Fresh Fruits & Vegetables Purchased by
Calaveras County WIC Mom's**

Top 20 Fruits

Bananas	Tangerines
Apples	Kiwi
Grapes	Mango
Oranges	Plums
Avocado	Lemons
Strawberries	Limes
Pears	Watermelon
Cantaloupe	Melon
Peaches	Pineapple
Nectarines	Grapefruit

Top 20 Vegetables

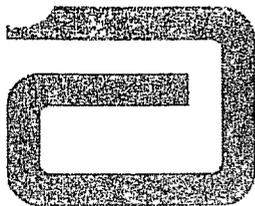
Tomatoes	Bell peppers
Onions	Celery
Romaine Lettuce	Summer Squash
Potatoes	Asparagus
Carrots	Cauliflower
Broccoli	Artichokes
Corn	Cilantro
Iceberg Lettuce	Radishes
Cucumbers	Cabbage
Mushrooms	Garlic

Source: Shirlee Runnings and Billie Westernoff's presentation "The Institute of Medicine's Recommendations in Action – Mother, Infant & Child Harvest Calaveras County WIC." Presented at "Healthy Choices – Making Fruits and Vegetables Work in WIC" Congressional Briefing, Dec 6, 2005, Washington, D.C.

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November 3, 2006

Ms. Patricia N. Daniels
Director, Supplemental Food Programs Division
Food and Nutrition Service
United States Department of Agriculture
Room 528
3101 Park Center Drive
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I-95

RE: RIN 0584-AD77 – Proposed Rule To Revise WIC Food Package Regulations

Dear Ms. Daniels:

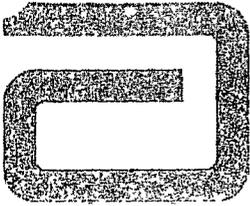
Abbott's Ross Products Division is pleased to submit comments in response to the proposed rule that would revise regulations governing the food packages provided through the Special Supplemental Nutrition Program for Women, Infants and Children (the "WIC program"). Ross Products is a U.S. manufacturer of infant, child, and adult nutritional products.

The company has a long-standing interest in the WIC program and its role in providing nutrition education as well as supplemental foods. We strongly support the promotion of breastfeeding for all postpartum women, including WIC participants. These comments focus on the following aspects of the proposed rule: alignment with the *Dietary Guidelines for Americans*; lack of definition of percentage of dietary needs supplied by a food package; efforts to encourage breastfeeding; infant feeding categories and the amount of formula provided; provision of powder infant formula to neonates and premature infants; prohibiting the issuance of low-iron infant formula; the proposed food package for participants with qualifying conditions; the proposed implementation schedule; and opportunities for new foods and food forms.

Dietary Guidelines for Americans

As an initial matter, Ross commends the Food and Nutrition Service (FNS) for publishing the proposed rule. The proposed rule, which is based largely on the recommendations of the National Academies' Institute of Medicine (IOM), is at major step toward making the food packages conform to the *Dietary Guidelines for Americans* and accommodate participants with cultural food preferences. Examples of how the proposed rule would provide greater consistency with the Dietary Guidelines include the proposed addition of whole grains, fruits, and vegetables to the food packages for the first time. Additionally, the revised food packages would provide a greater amount of nutrients such as iron, fiber, and vitamin E, while at the same time reducing total fat, cholesterol and sodium.

Nutrition science has made significant progress in the nearly 30 years since most of the current food packages were established, and the *Dietary Guidelines for Americans* have been revised numerous times to reflect that progress. In addition, the target population for WIC has grown significantly and become more diverse. The proposed rule would make a number of necessary changes to the WIC food packages to ensure that the program can help support the diet of program participants in a manner that is consistent with the current guidelines.



Lack of Definition of Percentage of Dietary Needs Supplied by a Food Package

As its name suggests, the WIC program is intended to be a supplemental food and nutrition program. The underlying statute is clear on this point, and notes that it is "the purpose of the program authorized by this section to provide . . . *supplemental* foods" 42 U.S.C. § 1786(a) (emphasis supplied). However, to date there has been no clear definition of what percentage of a recipient's needs should to be supplied by a given food package. Such issues could potentially be addressed at the local level, as WIC staffs are to assess each participant's nutritional needs and food preferences and prescribe an individually tailored food package that best fits the participant's needs and circumstances. Yet, health outcome data suggest this approach has not been effective. Overweight and obesity continue to be growing problems in adults and children, and in children the extent of overweight has increased even more rapidly than the prevalence of overweight. Given these trends, we recommend that in addition to the proposed changes in the type and quantity of foods offered, that any final or interim rule promulgated by FNS clearly define the percent of a participant's dietary needs that are to be supplied by the program. This would help local programs better tailor food packages to individual participant needs.

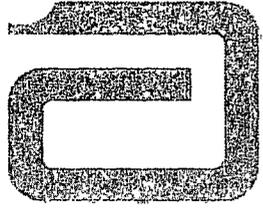
Breastfeeding Support

Breastfeeding initiation and duration rates for WIC participants have increased significantly over the past ten years, and FNS should be proud of this important accomplishment. As the agency knows, however, the rates for WIC participants still lag about 20 percentage points behind the general population. In an effort to better support and promote breastfeeding the proposed rule would make a number of important changes. First, it would establish two feeding options for the first month after birth, fully breastfeeding or fully formula feeding. Second, it would increase the market value of the food packages for a breastfeeding woman and her infant during the first year after birth. At the same time the proposal would decrease the relative value of the food packages for partially breastfeeding and fully formula feeding participants, including decreasing the potential amount of infant formula provided to infants who are partially breastfed.

For example, in the proposed Food Package VII for breastfeeding women the quantity of some products would be increased substantially and alternatives would be allowed for others. Likewise, the proposed Food Package II for fully breastfed infants would include infant food meats, a product that would not be available to partially breastfed infants or fully formula fed infants, and would provide twice as much infant food fruits and vegetables. Increasing the value of the food packages for fully breastfeeding participants and decreasing the potential amounts of infant formula provided to infants who are partially breastfed are appropriate ways for the program to promote and support breastfeeding, and would complement FNS' ongoing efforts in this important area.

Infant Feeding Categories and Amount of Formula Provided

The proposed rule would establish three separate feeding categories for infants – fully breastfed, partially breastfed, and fully formula fed. The age ranges for the infant food packages would be changed slightly so that Food Package I covers birth through five months and Food Package II covers six months through 11 months, and the amount of infant formula provided for these participants would vary according to the feeding category. Finally, compared to the existing regulations, there would be a slight increase in the amount of infant formula provided to infants four months to five months in proposed Food Package I and a reduction in the amount of formula provided to fully formula fed infants in the proposed Food Package II. These would be important departures from the existing infant food packages. In proposing three distinct infant feeding categories FNS has provided options that allow for different feeding needs and struck a delicate and important balance. The proposed food packages would ensure that infants are



receiving a nutritionally appropriate food package. At the same time the changes would diminish the current food packages' disincentive to breastfeeding.

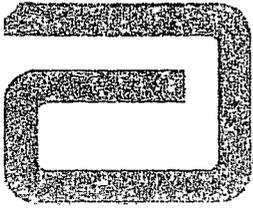
The proposed creation of three infant feeding categories recognizes the reality of the different feeding options a mother can choose to utilize. The existing regulations make no such distinction, and a breastfeeding mother who chooses to supplement with formula can receive the complete infant formula food package. For example, infants receiving the current Food Package I (whether partially breastfed or fully formula fed) are authorized to receive up to 403 fluid ounces of concentrated liquid formula. By providing more infant formula than a partially breastfed infant may need the existing food package could be a disincentive to continued breastfeeding. The proposed rule would do just the opposite – it would support FNS' breastfeeding promotion efforts by providing partially breastfed infants with no more than half of the amount of infant formula provided to fully formula fed infants.

The rule would reduce the amount of formula provided under proposed Food Package II (for infants ages 6 months through 11 months). This would also be an appropriate change as it recognizes that infants' nutritional needs would not be fully dependent upon formula or a combination of formula and breastfeeding at these ages. Much like the existing Food Package II, FNS has proposed to include other infant foods in this package (e.g., cereal and fruit), and the introduction of these complementary foods would ensure that infants are receiving an appropriately crafted food package.

The proposed rule would change how infant formula maximum monthly allowances are expressed, proposing allowances for both liquid concentrate and powder physical forms expressed in reconstituted fluid ounces. In addition to making this change for consistency, there should also be consistency in the *amounts* of maximum monthly allowances. Currently, the amounts of reconstituted fluid ounces provided in the WIC food packages are different for powdered vs. concentrated liquid physical forms. As mentioned previously, WIC food package guidelines should be developed based on a participant's supplemental nutrient needs, and, accordingly, the amount of formula provided should not differ based on the form in which a product is provided.

Additionally, FNS should not, as it has proposed, use current infant formula manufacturer package sizes as the basis for determining the total amount of formula that would be provided. The amount provided should be based on supplemental nutritional needs, not manufacturer packaging configurations that could change in the future. If the agency decides to use its proposed methodology based on current packaging it should eliminate the "rounding up" provision (*proposed* 7 C.F.R. § 246.10(h)). Importantly, the WIC statute does not require that State agencies round up to the next whole can, and is clear that this provision "may" be used to ensure that participants "receive the full-authorized nutritional benefit specified by regulation." 42 U.S.C. § 1786(f)(25). Basing the amount provided in the regulation on current packaging configurations obviates the need for rounding up.

The agency should consider implementing a meaningful requirement that local agencies monitor participant feeding categories. A systematic approach is necessary to ensure that participants' nutritional needs are being met appropriately. It would also give infant formula manufacturers some assurance that a participant that is classified as fully formula feeding or partially breastfeeding is *not*, in fact, fully breastfeeding. Trafficking of illicitly obtained infant formula is a significant concern, and one that led Congress to amend the Child Nutrition Act to ensure that authorized retailers purchase infant formula only from authorized entities. 42 U.S.C. § 1786(h)(8)(A)(ix)-(x). Monitoring feeding practice would help ensure that the WIC program does not inadvertently contribute to this problem.



FNS Should Prohibit Provision of Powder Infant Formula to Neonates and Premature Infants

The proposed rule would continue to authorize infant formula in liquid concentrate, powder, and ready-to-feed physical forms. Powder infant formula would be recommended in Food Package I for partially breastfed infants ages one month through three months due to its longer shelf life, less waste and an ability to mix the small amounts needed for the partially breastfed infants. Powder infant formula is not commercially sterile, and is not recommended for feeding to neonates and immune-compromised infants. Thus, it would also be appropriate for the proposed rules to state powder infant formula not be recommended in Food Package I for premature infants (partially breastfed or formula fed) and for formula fed infants less than one month of age.

Prohibiting the Issuance of Low-iron Infant Formulas in Food Packages I, II, and III

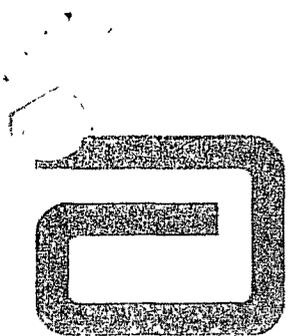
We commend FNS for proposing to disallow low-iron infant formula in Food Packages I, II, and III. As noted in the proposed rule, iron-fortified infant formulas play an essential role in providing iron in the diets of non-breastfed infants, and, according to the American Academy of Pediatrics (AAP), there are no known medical conditions warranting the use of a low-iron infant formula during infancy. In addition, the AAP Committee on Nutrition acknowledges that the use of iron-fortified formulas has dramatically reduced the rate of iron-deficiency anemia during infancy in the last 25 years. The proposed change to prohibit issuance of low-iron infant formula will help ensure the healthy growth and development of infants who are not breastfed.

Proposed Food Package III For Qualifying Medical Conditions

The agency has proposed to simplify how nutrition benefits are provided to medically fragile WIC participants by adding infants with qualifying medical conditions to the population served by Food Package III. Examples of qualifying medical conditions include, among other things, premature birth, low birth weight, failure to thrive, and severe food allergies that require an elemental formula. Infants would generally be eligible to receive an exempt infant formula in the same maximum amounts for the same age and feeding categories of infants in food packages I and II. It is appropriate that FNS has proposed to provide examples of qualifying medical conditions rather than strictly limiting the universe of qualifying conditions. State and local agencies and a recipient's licensed health care professional need the guidance provided by the proposed examples. At the same time, they need the flexibility to address unique, individual medical needs on a case-by-case basis when appropriate.

The proposed Food Package III, however, would reduce the maximum amount of exempt formula that could be issued to an infant with a qualifying medical condition. This could be a disservice to these medically fragile infants. Medically fragile infants that require a therapeutic formula should be allowed to receive the appropriate amount of exempt formula necessary to serve their unique nutritional needs, which in some cases could be more than the amount provided to healthy infants. Ross suggests that any final or interim rule accommodate those participants whose medical conditions require more exempt formula than the proposal would allow. Additionally, FNS should include an age adjustment provision for premature infants, which would help ensure a more accurate determination of the appropriate nutrition requirements for these infants.

FNS should also consider providing a more carefully tailored and clear definition of "WIC eligible medical foods". The Food and Drug Administration (FDA) is responsible for regulating medical foods, and rather than attempting to craft its own definition FNS should rely on that agency's expertise in this area. See, e.g., www.cfsan.fda.gov/~dms/ds-medfd.html and 61 Fed. Reg. 60,661 (Nov. 29, 1996).



Implementation Schedule

The agency has proposed a bifurcated implementation schedule for the proposed rule. Most food packages would be implemented within one year of publication of an interim final rule. The proposed changes for partially breastfed infants and partially breastfeeding women would be limited to no more than 32 sites within 8 state agencies so that FNS can assess the changes prior to full implementation.

The proposed changes to the food packages for partially breastfed infants and partially breastfeeding women are significant, and it is understandable that FNS would want to study the impact of these changes on breastfeeding initiation and duration rates. The agency has not, however, established a time frame for such a study, and it should consider doing so. Like FNS, recipients, state and local agencies, program advocates, the food industry, and the retail grocery industry are all concerned about the impact of these proposed changes. A time frame for this study should be established so that there can be at least a general understanding of how long this process may take.

Moreover, a clear and well-defined strategy to determine the impact of the proposed changes is needed. Ross suggests that the test state, or group of states, make available all formula issuance and redemption transaction records created during the test period so that manufacturers can fully understand the posed changes. Additionally, the test areas should be required to provide a minimum of six months notice to the contracting infant formula manufacturer prior to the testing period so that company has time to properly adjust its manufacturing schedule and retail inventories. Also, data from all compliance efforts should be made available to allow manufacturers to determine the amount of fraud and theft that exists.

Opportunities for New Foods and Food Forms

The WIC target population and food habits have changed significantly over time. Today's WIC population is more diverse and the food supply offers significantly greater variety than 30 years ago. Making changes in the rules governing WIC food packages provides an opportunity to be forward thinking. WIC growth projections and population trends as well as new food technologies should be considered. The criteria for selecting WIC food packages should address not only the foods readily available today, but possible opportunities for forms yet to be widely distributed or developed, such as specialized nutrition bars and drinks. It may be that in the future, such alternative food forms provide ease in access, storage, and preparation that may make them particularly advantageous to meet the nutritional needs of the WIC population. Amending the food package regulations, as FNS knows, is not easy or quick, and the agency should do all it can to make sure that the final rule does its best to ensure that WIC participants will be able to take full advantage of innovations in the food industry.

Conclusion

Again, Ross commends FNS for the proposed rule. It reflects years of hard work by agency staff and illustrates their true commitment to improving the WIC program so it can best meet the needs of program participants.

Sincerely,
Howard D. Scholick
Director
Federal Government Affairs



11-02-06

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I-76

November 1, 2006

Patricia N. Daniels, Director
Supplemental Food Programs Division
Food and Nutrition Service, USDA
3101 Park Center Drive, Room 528
Alexandria, VA 22302

Dear Ms. Daniels:

We are submitting comments in response to the proposed rule published by the Food and Nutrition Service on Monday, August 7, 2006, concerning the revisions to the Women, Infants and Children (WIC) food packages. Specifically, we wish to bring to your attention to policy issues surrounding the proposed WIC regulations that will negatively impact cranberry products with their associated nutritional and health benefits. Ocean Spray is an agricultural cooperative formed in 1930 and owned today by some 650 cranberry growers in Massachusetts, Wisconsin, New Jersey, Oregon, Washington British Columbia and other parts of Canada, as well as more than 80 Florida grapefruit growers. Ocean Spray is the number-one brand of shelf-stable juices in the U.S., with 2005 sales of some \$1.4 billion.

As you know, under the new proposed WIC food packages, the amount of juice offered to participant is significantly reduced under the auspices that consumption of fresh fruits and vegetables should be nutritionally preferred to the consumption of juice product. While increasing the consumption of fresh fruits and vegetables is a laudable goal, it should not come at the expense of juice products. Therefore, Ocean Spray believes that the WIC program's funding should be increased to allow participants the benefits of both fresh fruits and vegetables in addition to juice.

Ocean Spray is concerned that the food packages as currently designed will not permit for the consumption of cranberry products. Cranberries, unlike most fruits or vegetables, are not consumed in their fresh state due to their high acid content and tart taste. Most consumers obtain the benefits of cranberry through consumption of juice, sweetened with other fruit juices or with high fructose corn syrup, or through eating sweetened dried cranberries or cranberry sauce.

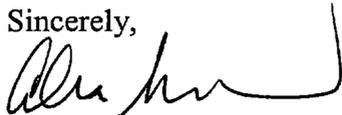
Research has shown that cranberry juice has a range of positive nutritional benefits. The health benefits for women are particularly striking. A growing body of research has shown that cranberry beverages, including cranberry juice cocktail and 100% cranberry juice blends, can significantly reduce the incidence of urinary tract infections (UTIs). UTIs present a serious health problem, considered to be the most common bacterial infection, and account for more than 11 million physician visits annually in the United States. UTIs in pregnant women present special problems, due to increased risks of both pregnancy and perinatal complications. Given the inherent urinary tract health benefits, cranberry beverages are ideal candidates for the WIC food packages for women, especially pregnant, post partum, and breast-feeding women. By determining the nutritional content of juice solely by a 100% juice standard, the nutritional qualities and benefits of cranberry juices and juice drinks are not accounted for appropriately.

In addition, packaging restrictions have also limited the availability of cranberry juice to WIC participants. Unfortunately, the proposed rules do not address the current packaging problems that exist under WIC. Under the current WIC regulations, a majority of states require that the product be in 46-oz cans or frozen concentrate, with a limited number of states allowing 46-oz plastic bottles or liquid concentrate. By focusing on these outdated packaging options, the WIC program eliminates many juice products from consideration. In the beverage industry and more specifically, the cranberry industry, the most prevalent package is 64-oz plastic containers. These re-sealable containers are a significant improvement over cans and result in less wasted product.

Given the demonstrated nutritional benefits of cranberry juice products and current barriers to the WIC program, we ask that you fully examine the value of making cranberry juice products available to WIC participants. The WIC program's success depends upon the continuation of food packages targeted to meet the nutrient needs necessary to improve pregnancy outcomes and promote normal infant and child-development. We strongly encourage the FNS to expand funding of the WIC to allow for the continued consumption of juice, as well as the added consumption of fruits and vegetables. We look forward to working with you as the Department continues its efforts to improve this important program.

Thank you for your attention to this important matter.

Sincerely,



Alana Sharenow
Senior Corporate Counsel



NOV - 1 2006

October 30, 2006

Patricia N. Daniels
Director
Supplemental Food Programs Division
Food and Nutrition Services, USDA
3101 Park Center Drive
Room 528
Alexandria, VA 22302

I-77

Re: **Comments to Proposed Rule Regarding Revisions to the WIC Food Packages Rule; Docket No. 0584-AD77**

This comment is submitted by The Quaker Oats Company ("Quaker"), a wholly-owned subsidiary of PepsiCo Inc., in response to the United States Department of Agriculture's ("USDA") request for comments on the subject of revisions to the Women, Infants and Children ("WIC") food program.

Quaker is a major manufacturer and distributor of processed foods and beverages in both retail and food service markets. The foods that Quaker processes include the oat-based products consumers traditionally associate with the company as well as other hot and ready-to-eat cereals, dry breakfast food mixes, pasta and rice side dishes, and many other wholesome and nutritious foods. Quaker has, for some time, been in the forefront of food manufacturers advocating the development and marketing of healthier and more nutritious food products. Quaker continues to share with USDA the goal of ensuring that all residents have access to wholesome food products which deliver true nutritional benefits.

Quaker appreciates the opportunity to provide comments to USDA on this important matter.

I. Support For Whole Grains Standard & Category

Quaker strongly supports the USDA's proposal to change the minimum requirements and specifications for breakfast authorized cereals to include a 51% whole grain requirement and need to meet the labeling requirements for making a health claim as a "whole grain food with moderate fat content." We also strongly support the creation of the other whole grain category.

In addition to supplying essential nutrients, the consumption of whole grains have consistently been associated with a reduced risk of many of the major health conditions that impact our nation including heart disease, cancer, diabetes, obesity/overweight, and elevated cholesterol. Also, a greatly underappreciated aspect of DASH (Dietary Approaches to Stop Hypertension) is the central role that whole grain consumption plays in this dietary pattern (1). The aforementioned adverse health conditions and diseases are major causes of mortality and morbidity in our country. They can take decades to develop and usually manifest themselves in adulthood however, their antecedents begin in childhood. As such, aligning the WIC food packages to be more consistent with the whole grain intake recommendations in the 2005 Dietary Guidelines for Americans is an important action for improving the health of Americans.

The recommendations as presented by the Institutes of Medicine (IOM) clearly support the 51% standard as an impactful way of assuring more whole grains are made available to the diets of Women, Infants and Children. Any lower standard would not be as effective in encouraging whole grain consumption by this population.

II. Increase Women's Allotment For Whole Grains

Based on sound science and public health needs as detailed below, Quaker recommends the allotment of other whole grains be increased for women to at least 2 lbs per month. Whole grains are arguably the most under consumed food category in the American diet. According to the U.S. Department of Agriculture, 34 percent of Americans are consuming the recommended number of servings of vegetables, 26 percent are meeting the recommendations for dairy, and 24 percent for fruit, respectively (2). In contrast, applying the guideline of 2005 Dietary Guidelines for Americans that at least half of all grain consumption should be from whole grains to the 1999-2002 NHANES data set, only 4.1 percent of Americans currently meet this recommendation (2). Non-Hispanic Blacks and Hispanics consume less, with only 3.1 percent of these populations meeting the recommendation. Given the order of magnitude difference between the recommended and self-selected amount of these food categories, we recommend that a greater maximum monthly allowance be put in place within the other whole grains category of WIC. Specifically, the allowance for women should be increased from the proposed 1 lb to at least 2 lbs.

III. High Bran Supports Fiber Intake

Historically, breakfast cereals have served an important role in nourishing the American public and currently, they make a significant contribution to total whole grain intake. A number of breakfast cereals which meet the proposed revisions (51% whole grain) currently exist and will provide a range of choices to WIC participants. An additional enhancement to the criteria which would further increase variety and accomplish much of the same nutritional impact would be the provision to include high bran containing cereals which supply, at a minimum, an excellent source of dietary fiber (20% DV) without fortification and meet the same fat requirements as the whole grain food with moderate fat health claim. These types of cereals often contain even greater amounts of fiber than their whole grain counterparts because the bran portion of the whole grain is where the vast majority of the fiber is located. In addition, as bran is a crude fraction from the whole grain produced during the milling process, it also supplies a number of priority nutrients associated with the whole grain, often in greater concentrations (table 1).

Table 1. Priority Nutrient Content (per 100 grams) of Bran and Whole Grains.

Nutrient	Wheat Bran	Whole Wheat Flour	Oat Bran	Oats
Fiber (g)	43	12	15	11
Calcium (mg)	73	34	58	54
Magnesium (mg)	611	138	235	177
Potassium (mg)	1182	405	566	429
Iron (mg)	10.6	3.9	5.4	4.7

Source: U.S. Department of Agriculture, Agricultural Research Service. 2006. USDA National Nutrient Database for Standard Reference, Release 19.

In addition to the favorable nutrient composition of bran, most of the epidemiological studies which substantiate the strong association between whole grains and the promotion of good health and reduced risk of disease, aggregate bran and bran cereals together with whole grain cereals and other whole grains in their analysis. See for example the following references cited by the 2005 Dietary Guidelines Advisory Committee in their consideration of the relationship between whole-grain intake and health (3-12). As such, we recommend the breakfast cereal category be expanded to include high bran containing cereals which supply a minimum of 20% DV of dietary fiber per RACC, meet the regulatory definitions for low saturated fat and low cholesterol (21 CFR 101.62), bear quantitative trans fat labeling, and contain ≤ 6.5 g total fat per RACC and ≤ 0.5 g trans fat per RACC.

IV. Benefits of Grits in the WIC program

Grits, which have long been included as part of the WIC program, are a regional favorite in many parts of the country, especially in the Southeast. Indeed, Grits are a cultural staple for many families—particularly urban, suburban and rural working class families. Grits are generally made from pure, milled white corn, and are traditionally served as a hot cereal for breakfast. Fortified grits can be an excellent source of iron (some brands contain 45 percent of the daily recommend allowance) and a good source of calcium.

In addition, Grits are cholesterol-free and are fortified to include vitamins such as thiamin, riboflavin, niacin and folate. Folate in particular is an important nutrient for women of child-bearing age. For these reasons, we recommend USDA continue to permit fortified grits as a choice in the cereal category for WIC.

V. Conclusion

For all of the above reasons, Quaker believes that USDA should give careful consideration to the revisions being proposed to the WIC program. Certainly Quaker's track record proves that it has been committed to providing nutritious options to all sectors of the population. Fortunately, with greater consciousness than ever about the benefits of whole-grains and fiber, the time is right for USDA to help implement the 2005 Dietary Guidelines for Americans via these reforms. The recommendations we have made in this comment can help make the delivery of increased nutritional benefits a reality for all portions of our population.

Please do not hesitate to contact us if you have any questions or would like to discuss further.

Sincerely,



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Quaker Tropicana Gatorade
847-304-2375



Carol Kane
WIC Administrator
Quaker Tropicana Gatorade
312-821-2674

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NOV - 6 2006

National Cattlemen's Beef Association

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II-78

November 5, 2006

Patricia N. Daniels
Director, Supplemental Food Programs Division
Food and Nutrition Service, USDA
Room 528
3101 Park Center Drive
Alexandria, Virginia 22302

RE: Docket No. 0584-AD77; Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Revisions in the WIC Food Packages; Proposed Rule.

Dear Ms. Daniels:

The National Cattlemen's Beef Association (NCBA) appreciates the opportunity to provide comments to the Food and Nutrition Service (FNS) on its intent to align WIC food packages with the 2005 Dietary Guidelines for Americans and the current infant feeding practice guidelines of the American Academy of Pediatrics. Producer-driven and consumer-focused, NCBA is the trade association of America's cattle farmers and ranchers, and the marketing organization for the largest segment of the nation's food and fiber industry.

We appreciate the efforts being undertaken by the FNS to revise the WIC program to improve the nutritional quality of WIC food packages for children, but do not want to lose sight of the program's goal of improving the dietary quality of *all* participants, including pregnant, breastfeeding, and non-breastfeeding postpartum women. In particular NCBA:

- Applauds the addition of infant food meat for fully breastfed infants 6-11 months of age (Food Package II). This addition will make an important contribution toward improving public health by ensuring that priority nutrients – zinc and iron – are made available to at-risk populations;
- Encourages FNS to reconsider the criteria used to evaluate inadequate nutrient intake among WIC participants. Zinc is a nutrient of concern among women of childbearing age. Encouraging WIC program participants to achieve adequate amounts of zinc in their diets, particularly if they are pregnant, should be a priority;
- Concurs with FNS that education of state and local agency staff, as well as WIC participants, will be vital to ensure implementation of the revised food packages and improvement of the nutritional status of WIC participants.

Thank you for your consideration of these comments and the following research and support points.

Mary K. Young, MS, RD
Executive Director, Nutrition
National Cattlemen's Beef Association

Leah Wilkinson
Director, Food Policy
National Cattlemen's Beef Association

Supporting research for the National Cattlemen's Beef Association's comments on Docket No. 0584-AD77 - Revisions in the WIC Food Packages; Proposed Rule

Food Package II: The addition of infant food meat to Food Package II is an important contribution toward improving public health by ensuring that priority nutrients – zinc and iron – are made available to at risk populations.

We commend FNS for adding infant food meat for fully breastfed infants aged 6-11 months as part of proposed Food Package II. As acknowledged in the proposed rule, iron and zinc are identified as priority nutrients lacking in the diets of breastfed infants six months and older. This is primarily due to the challenge of obtaining adequate intake from exclusive breastfeeding and the subsequent dependence on complementary foods to meet dietary requirements (1, 2). In fact, it is estimated that for a 9-month-old breastfed infant, more than 90% of the projected requirement for these two trace elements would need to be provided by complementary foods (3).

Meat as First Food

Meat is an important source of both iron and zinc and has been recommended as early as age 4 months as an alternative to iron-fortified cereal (4, 5). Cereals, fruits and vegetables – the typical first choices of complementary foods – all provide very modest amounts of zinc (6). The American Academy of Pediatrics has indicated that meats are an appropriate early complementary food, but results from a 2004 survey on the food consumption patterns of more than 3,000 infants and toddlers age 4 to 24 months indicate that less than 10% of 7 to 8 month-olds eat baby food meats, whereas 43% eat mixed dishes (which include a vegetable or rice or pasta plus some meat) as sources of protein (6, 7). That is unfortunate, since these mixtures typically provide a small percentage (~15%) of the zinc and a modest amount (~30%) of the iron compared with single food pureed meats (8).

As infants age, their need for nutrients also grows, and introducing meat as an early complementary food has the advantage of providing key nutrients such as iron and zinc in a highly bioavailable form, that may otherwise be limited in the diet from human milk alone (7).

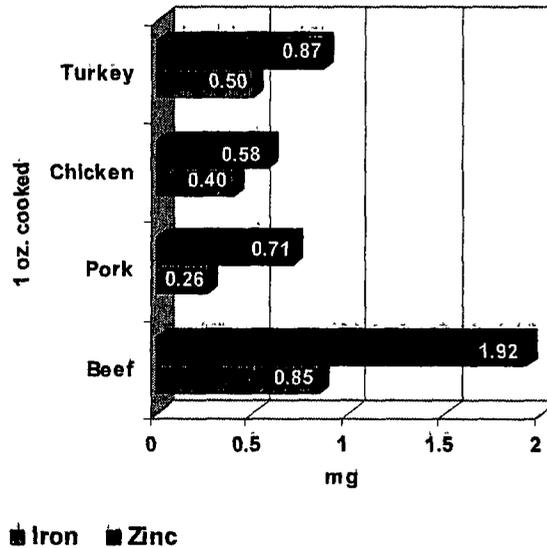
A study comparing zinc absorption from meat and cereal in a small subgroup of 7-month old breastfed infants showed significantly greater zinc absorption from a test meal of meat compared with a test meal of cereal (9). In the February 2006 *Journal of Pediatric Gastroenterology and Nutrition*, research comparing the feasibility and effects of randomizing breastfed infants to either pureed meat or iron-fortified infant cereal from age 5 months through 7 months found that giving meat to infants as their first complementary food is practical and a better way to improve zinc intakes than using iron-fortified cereals. Moreover, possible benefits included a significantly higher rate of growth in head circumference, coupled with a trend for a difference in the behavior subscale of the Bayley Scales of Infant Development test (10).

According to data from the *Journal of Pediatric Gastroenterology and Nutrition* study, intakes of zinc from cereal-based, nonzinc-fortified complementary foods for breastfed infants in the United States are remarkably low at age 7 months and do not necessarily adequately increase thereafter. Biochemical data from the infants at 9 months suggests mild-to-moderate zinc deficiency may not be uncommon in breastfed infants. A modest intake of meat substantially increased zinc intake in a highly bioavailable form and the infants accepted the meat similarly to other new complementary foods. Thus, it's quite possible that the low intakes of zinc reported for the cereal group may well persist for older infants who do not consume meats or nonzinc fortified infant cereals (10).

Among the most popular meats for infants, beef is the best source of both iron and zinc. One 2 ½ ounce serving of beef (a typical size jar of baby food) provides 2.12 mg of iron (19% of the RDA) and 4.8 mg of zinc (over a full day's supply of the RDA) for infants aged 7 -12 month olds (11).



Chart 1. Iron and Zinc Content of Popular Meats for Infants (11)



The Importance of Iron and Zinc for Infants

Iron and zinc play a critical role in cognitive development, behavior and growth.

Iron

A child's growth and development depends on iron. The heme iron in animal foods, such as beef, is best absorbed by the body, compared to the nonheme iron in plant foods. As children progress through the feeding stages, serving meat along with plant foods or foods fortified with iron helps children absorb more of the nonheme iron from plant and fortified foods than if they ate these foods alone without meat. This is called the "meat factor."

- A recent review of research indicates that infants who are iron deficient are more likely to have developmental, social and behavioral problems, as well as problems coordinating their movements correctly. In many studies, these negative effects lasted into adolescence and even adulthood (12).
- There is a significant body of evidence linking changes in neurological and cognitive function to iron deficiency and iron deficiency anemia in children (13-16). A longitudinal follow-up study of 166 children who had been tested and treated for iron deficiency as infants found that 10 years after treatment, those who had severe, chronic iron deficiency in infancy experienced long-lasting effects, including a delay in arithmetic achievement, spatial memory, written expression, motor functioning, and severe recall. In addition, they were more likely to have repeated a grade, been referred for special services, and experienced anxiety or depression problems, social problems, and attention problems.

Zinc

Zinc is also essential for growth and development and is a critical component for many body functions. Research suggests zinc plays an important role in improving recall skills, reasoning and attention in children (17). Since the zinc content of breast milk gradually decreases over time, it is important to introduce foods rich in zinc when infants progress to solid foods. Animal and plant foods both supply zinc, but as with iron, zinc is better absorbed from meat and other animal products.

- Zinc deficiencies can have a detrimental effect on brain function – specifically attention span, learning ability, short term memory, and problem solving skills. Increasing zinc

intake improves psychomotor function and cognitive function, like memory, reasoning, and attention in children (18).

- In addition to its damaging effects on learning, zinc deficiency effects can also include reduced growth and delayed sexual maturation in children (17):

Beef has a superior nutrient package that contributes essential nutrients to the diet and should be recommended as an optimal choice among pureed meats. It is an important food source for nutrients that are essential for optimal growth and development that otherwise can be difficult to get in the diet, particularly breastfed infants' diets. One 3-ounce serving of beef is an excellent source of protein, zinc, vitamin B₁₂, selenium, and phosphorus and is a good source of niacin, vitamin B₆, riboflavin, and highly bioavailable iron. Beef's nutrient package also enhances bioavailability of other nutrients in the diet (11).

Food Packages for Women: Zinc is a nutrient of concern for women of childbearing age. The WIC package should provide participants with foods high in bioavailable zinc.

Although the proposed rule lists zinc among the nutrients with lower levels of inadequacy, many Americans, including women of childbearing age, have marginal intakes that could jeopardize good health. In fact, an analysis of National Health and Nutrition Examination (NHANES) survey data show that a significant percentage of females 19-50 years of age are not meeting Estimated Average Requirement for zinc. In particular, 46.8% of non-beef eating females in this age group had inadequate intakes of zinc while only 8.5% of those consuming at least 2.0 to 3.4 ounces of beef had inadequate zinc intake. According to CSFII data, 75% of women ages 20-29 years are not consuming the recommended number of servings from the meat and alternates group (19), which may account for the lower intake levels of zinc, as well as other nutrients such as iron.

Zinc has hundreds of functions and is essential for reproductive health. Of particular note, zinc deficiency in women can affect pregnancy outcome and fetal development (20). A review by King on zinc and pregnancy outcome suggests that cereal-based diets high in phytate may alter zinc utilization and concluded that women with low plasma zinc concentrations should be given supplemental zinc during pregnancy, since maternal zinc deficiency impairs fetal growth and increases the risk of complications at delivery (21). A 3-ounce serving of beef provides 54% of the RDA for zinc for pregnant women age 19-50 years.

Education of state and local agency staff, as well as WIC participants, will be vital to ensure implementation of the revised food packages and improvement of the nutritional status of WIC participants.

Education on the addition of infant food meats to the WIC package will be critical in order to help state and local agencies and WIC participants implement change in infant diets. Most parents start with fortified cereals when beginning complementary foods and it will be a shift in mindset to now consider pureed meats instead or as part of their usual routine. State and local agencies will need to emphasize this new addition to the food package during training so that WIC counselors can in turn promote the benefits of and encourage parents to give pureed meats to their baby, and explain why pureed meats are an important nutritional choice for their child.

Conclusion

In summary, the addition of infant food meat to the WIC food package for fully-breast fed infants aged 6-11 months is a positive step that will help infants participating in the program to obtain adequate zinc and iron in their diet, as well as other key nutrients, that promote normal development and support good health. However, zinc is also a nutrient of concern among women of childbearing age. It is important to encourage WIC program participants to achieve adequate amounts in their diet, particularly if they are pregnant. In addition, we encourage FNS to communicate this important enhancement in the WIC program to its agencies and participants.

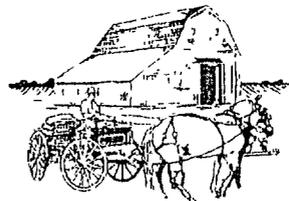
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Nebraska Bean, Inc.

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PHONE (402) 887-5335 or FAX (402) 887-4709
Internet site: <http://www.nebraskabean.com>



NOV 02 2006

I-98

October 31, 2006

Patricia N. Daniels
Director, Supplemental Food Programs Division
USDA Food and Nutrition Service
3101 Park Center Drive, Room 528
Alexandria, VA 22302

RE: Docket ID Number 0584-AD77, WIC Food Packages Rule

Dear Ms. Daniels:

The U.S. Dry Bean Council, and I personally, strongly support the rule changes proposed for WIC Food Packages by Food and Nutrition Service (FNS) as published in the Federal Register on August 7, 2006. The proposed amendments change the types and availabilities of numerous foods in the WIC Food Packages including packaged dry beans and canned beans. The U.S. Dry Bean Council commends FNS for developing these proposed changes because they more accurately reflect USDA's dietary recommendations, especially as relates to daily consumption of beans.

I personally support an expansion of packaged dry beans over canned beans, because canned products typically have higher amounts of some additives that we need to be careful about like sodium...well, and because our small processing company also packages beans. But, still, canned beans are healthier than no beans.

Eat beans. Feed the children beans. Long live the musical fruit.

Sincerely,

Brett Morrison, President
Nebraska Bean, Inc.



NOV 02 2006

Nov. 1, 2006

Patricia N. Daniels
Director, Supplemental Food Programs Division
Via e-mail and U.S. Postal Service to
Food and Nutrition Service, USDA
3101 Park Center Drive, Room 528
Alexandria, Virginia 22302

I-100

Re: Docket ID Number 0584-AD77, WIC Food Packages Rule

Dear Ms. Daniels,

The State of Alaska's seafood marketing arm, the Alaska Seafood Marketing Institute, recommends that canned salmon be included in the proposed WIC food package III and VII for women fully breastfeeding, included in WIC food package III and IV for all target groups, and included in WIC food package V and VI.

The USDA Food and Nutrition service is to be commended for the proposed rule to update regulations governing the WIC food package to align the WIC food packages with the 2005 Dietary Guidelines for Americans and current infant feeding practice guidelines of the American Academy of Pediatrics. This will promote better health, support the establishment of successful long-term breastfeeding, and provide WIC participants with a wider variety of healthy foods from which to choose.

Alaska Seafood Marketing Institute specifically supports the inclusion and authorization of canned salmon in the proposed WIC food package III and VII for women fully breastfeeding, and regards this as a very positive enhancement of this food package. The inclusion of salmon is consistent with current recommendations and new scientific evidence that seafood consumption, especially fish that naturally contain more oil (e.g., salmon) that are higher in eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), is desirable for the health of all population groups and life stages, which includes the unique nutritional needs of the WIC target population.

In addition to including canned salmon in packages III and VII women for who are fully breastfeeding up to 1 year postpartum, Alaska Seafood Marketing Institute recommends the inclusion and authorization of canned salmon for all target groups under WIC Food Package III and IV (i.e., children 1 through 4 years of age), V (i.e., pregnant and partially breastfeeding women – up to 1 year postpartum), and VI (i.e., women, up to 6 months postpartum) because all of these food packages are intended for population groups that would benefit from increased intake of seafood with higher quantitative amounts of EPA/DHA.

Fatty cold water fish including salmon have the highest EPA/DHA content. Canned salmon contains 0.718g (718mg) EPA (20:5 n-3) and 0.685g (685mg) DHA (22:6 n-3) per 3 ounce (85g) serving. Also, canned salmon contains a variety of other healthful nutrients, such as high-quality protein, calcium, selenium, niacin, vitamins B-6, B-12, and D. Several of these nutrients have been identified in the proposed rule as inadequate in the pregnant, lactating, and non-breastfeeding postpartum women (i.e., protein, calcium, niacin, and vitamin B-6). Saturated fat has been identified as a nutrient with excessive consumption among both children and women. Salmon is a nutrient dense food, low in saturated fat and moderate in calories: only 118 calories per 3 ounce serving. (See Attachment B; nutrient content referenced here is adapted from *U.S. Department of Agriculture, Agricultural Research Service, 2006. USDA Nutrient Database for Standard Reference, Release 19.*)

Salmon from Alaska are the dominant product in the canned salmon found on the shelf in U.S. supermarkets, and research conducted on all five species of Alaska salmon show them to be extremely low in contaminants, with "non-detect" levels of mercury and heavy metals. The State of Alaska's public health officials after reviewing the data collected through the state's fish monitoring project recommended unrestricted consumption of Alaska Seafood, including salmon, by all Alaskans including women of childbearing age, pregnant women, women who are breastfeeding and young children. The results of the testing may be visited on the internet site of the State of Alaska Dept. of Environmental Conservation http://www.dec.state.ak.us/eh/vet/heavy_metals.htm.

Finally, the addition of canned salmon would enhance the variety of foods offered to the WIC target groups and could positively influence life-long dietary choices for both the women and children in the program. Alaska Seafood Marketing Institute offers on its website downloadable information for consumers – including pregnant women and breastfeeding mothers--on many aspects of the health benefits associated with eating seafood including salmon. A series of papers for laypersons, authored by seafood nutrition authority Dr. Joyce Nettleton is available on the website, and details many of these health benefits. (<http://www.alaskaseafood.org/health/WhatsNewOmega3s.htm>) Our website www.alaskaseafood.org offers recipes and health information in Spanish and English for consumers. These resources are free on the internet, and are designed to educate people in easy ways to enjoy canned and shelf-stable salmon. Attached is a copy of the cited values from the USDA Nutrient Database.

Respectfully,

A handwritten signature in black ink, appearing to read 'Ray Riutta', written over a horizontal line.

Ray Riutta, Executive Director
Alaska Seafood Marketing Institute

Attachment

Fish, salmon, canned, solids with bone and liquid

Refuse: 0% USDA National Nutrient Database for Standard Reference, Release 19 (2006)
 NDB No: 15084 (Nutrient values and weights are for edible portion)

Nutrient	Units	1.00 X 3 oz 85g
Proximates		
Water	g	58.49
Energy	kcal	118
Energy	kJ	495
Protein	g	16.81
Total lipid (fat)	g	5.14
Ash	g	2.21
Carbohydrate, by difference	g	0.00
Fiber, total dietary	g	0.0
Sugars, total	g	0.00
Minerals		
Calcium, Ca	mg	181
Iron, Fe	mg	0.71
Magnesium, Mg	mg	29
Phosphorus, P	mg	280
Potassium, K	mg	277
Sodium, Na	mg	471
Zinc, Zn	mg	0.78
Copper, Cu	mg	0.087
Manganese, Mn	mg	0.017
Selenium, Se	mcg	28.2
Vitamins		
Vitamin C, total ascorbic acid	mg	0.0
Thiamin	mg	0.020
Riboflavin	mg	0.158
Niacin	mg	5.556
Pantothenic acid	mg	0.468
Vitamin B-6	mg	0.255
Folate, total	mcg	13
Folic acid	mcg	0
Folate, food	mcg	13
Folate, DFE	mcg_DFE	13
Vitamin B-12	mcg	3.74
Vitamin B-12, added	mcg	0.00
Vitamin A, IU	IU	48
Vitamin A, RAE	mcg_RAE	14
Retinol	mcg	14
Vitamin E (alpha-tocopherol)	mg	0.54
Vitamin E, added	mg	0.00
Tocopherol, beta	mg	0.00
Tocopherol, gamma	mg	0.00
Tocopherol, delta	mg	0.00
Vitamin D	IU	530
Vitamin K (phyloquinone)	mcg	0.3

Lipids		
Fatty acids, total saturated	g	1 305
4:0	g	0 000
6:0	g	0.000
8:0	g	0.000
10:0	g	0 000
12:0	g	0 000
14:0	g	0 041
16:0	g	1 148
18:0	g	0 115
Fatty acids, total monounsaturated	g	1 536
16:1 undifferentiated	g	0 396
18:1 undifferentiated	g	0 908
20:1	g	0 231
22:1 undifferentiated	g	0 015
Fatty acids, total polyunsaturated	g	1 742
18:2 undifferentiated	g	0.049
18:3 undifferentiated	g	0 049
18:4	g	0 115
20:4 undifferentiated	g	0 065
20:5 n-3	g	0 718
22:5 n-3	g	0 041
22:6 n-3	g	0 685
Cholesterol	mg	47
Amino acids		
Tryptophan	g	0.189
Threonine	g	0 737
Isoleucine	g	0 775
Leucine	g	1.367
Lysine	g	1 544
Methionine	g	0 498
Cystine	g	0 180
Phenylalanine	g	0.656
Tyrosine	g	0.568
Valine	g	0 866
Arginine	g	1.006
Histidine	g	0 495
Alanine	g	1 017
Aspartic acid	g	1 722
Glutamic acid	g	2.510
Glycine	g	0 807
Proline	g	0 594
Serine	g	0 686

NOV 02 2008



I-101

Patricia N. Daniels
Director, Supplemental Food Programs Division
Food and Nutrition Service, USDA
3101 Park Center Drive, Room 528
Alexandria, Virginia 22302

November 1, 2006

Re: Docket ID Number 0584-AD77, WIC Food Packages Rule

Dear Ms. Daniels,

Alaska Protein Recovery, LLC commends USDA's Food and Nutrition service for the proposed rule to revise regulations governing the WIC food package to align the WIC food packages with the 2005 Dietary Guidelines for Americans and current infant feeding practice guidelines of the American Academy of Pediatrics, better promote and support the establishment of successful long-term breastfeeding, provide WIC participants with a wider variety of food, and several other goals.

Alaska Protein Recovery, LLC believes that the inclusion and authorization of canned salmon in the proposed WIC food package III and VII for women fully breastfeeding is a very positive enhancement of this food package. The inclusion of salmon is consistent with current recommendations and new scientific evidence that seafood consumption, especially fish that naturally contain more oil (e.g., salmon) that are higher in eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), is desirable for the health of all population groups and life stages, which includes the unique nutritional needs of the WIC target population.

In addition to including canned salmon in packages III and VII women for who are fully breastfeeding up to 1 year postpartum, Alaska Protein Recovery, LLC recommends the inclusion and authorization of canned salmon for all target groups under WIC Food Package III and IV (i.e., children 1 through 4 years of age), V (i.e., pregnant and partially breastfeeding women - up to 1 year postpartum), and VI (i.e., women, up to 6 months postpartum) because all of these food packages are intended for population groups that would benefit from increased intake of seafood with higher quantitative amounts of EPA/DHA. The tables with a full description of the proposed rule food packages can be found in Attachment A. Our rationale for this recommendation is described herein.

On October, 17, 2006, the Institute of Medicine (IOM) of the National Academies, Washington, D.C., released a report "Seafood Choices: Balancing Benefits and Risks," in which the IOM reviewed the evidence on the benefits and risks associated with seafood consumption to help consumers make informed choices and to make recommendations on ways to guide U.S. consumers in making appropriate selections.

In this report, the IOM identified many benefits related to seafood consumption and EPA and/or DHA intake during developmental stages (i.e., pregnancy and/or lactation, infancy

and/or childhood) based on clinical trials and epidemiological studies. Some of the potential benefits included: increased duration of gestation; improved infant and child developmental outcomes; cognitive benefits for the children when they were 4 or 5 years of age; benefits for infant and child neurological development; and increased infant visual acuity.

Additionally, the IOM developed seafood consumption guidance for population groups based upon both the benefits and risks of contaminant exposure (e.g., exposure to methylmercury and other contaminants and pollutants in seafood). This guidance indicates that for females who are or may become pregnant or who are breastfeeding and children up to the age of 12 may benefit from consuming seafood, especially those with relatively higher concentrations of EPA and DHA with some limitations as to quantity consumed (i.e., up to 12 ounces/week and up to 6 ounces albacore tuna/week) and avoid large predatory fish (e.g., shark, swordfish, tilefish, or king mackerel). As compared to a many other varieties of seafood, salmon contains the least amount of methylmercury.

Among fish with high EPA/DHA content, salmon is included with those fish that have the highest concentration per serving. Canned salmon contains 0.718g (718mg) EPA (20:5 n-3) and 0.685g (685mg) DHA (22:6 n-3) per 3 ounce (85g) serving. Also, canned salmon contains a variety of other healthful nutrients, such as high-quality protein, calcium, selenium, niacin, vitamins B-6, B-12, and D. Several of these nutrients have been identified in the proposed rule as inadequate in the pregnant, lactating, and non-breastfeeding postpartum women (i.e., protein, calcium, niacin, and vitamin B-6). Saturated fat has been identified as a nutrient with excessive consumption among both children and women. Salmon contains lower amounts of saturated fat than many foods. Additionally, salmon contains only 118 calories per 3 ounce serving, which makes salmon a nutrient dense food. The nutrient content data referred to herein is based on the nutrition profile in Attachment B adapted from: U.S. Department of Agriculture, Agricultural Research Service, 2006. *USDA Nutrient Database for Standard Reference, Release 19.*

Finally, the addition of canned salmon would enhance the variety of foods offered to the WIC target groups and could positively influence life-long dietary choices for both the women and children in the program. The Alaska Seafood Marketing Institute (ASMI) can facilitate consumer consumption of canned salmon by providing to WIC a variety of economical, tasty salmon recipes that are easy to prepare by a culturally diverse population. *ASMI* also will provide consumer education materials regarding the benefits of salmon and seafood in a healthful diet.

Respectfully,



Sandro Lane, CEO

Alaska Protein Recovery, LLC

Attachment A

Federal Register/Vol. 71, No. 151, Monday, August 7, 2006/Proposed Rules at 44817 -44819

TABLE 2.—MAXIMUM MONTHLY ALLOWANCES OF SUPPLEMENTAL FOODS FOR CHILDREN AND WOMEN IN FOOD PACKAGES IV, V, VI AND VII

Foods ¹	Children	Women		
	Food package IV: 1 through 4 years	Food package V: Pregnant and partially breastfeeding (up to 1 year postpartum) ²	Food package VI: Postpartum (up to 6 months postpartum) ³	Food package VII: Fully breastfeeding (enhanced), (up to 1 year postpartum) ^{4,5}
Juice, single strength ⁶	128 fl oz	144 fl oz	96 fl oz	144 fl oz
Milk, fluid	16 qt ^{7,8,9,10}	22 qt ^{7,8,11,12}	16 qt ^{7,8,11,12}	24 qt ^{7,8,11,12}
Breakfast cereal	36 oz	36 oz	36 oz	36 oz
Cheese	N/A	N/A	N/A	1 lb
Eggs	1 dozen	1 dozen	1 dozen	2 dozen
Fruits and vegetables ^{13,14}	\$6.00 in cash value vouchers	\$8.00 in cash value vouchers	\$8.00 in cash value vouchers	\$8.00 in cash value vouchers
Whole wheat bread or other whole grains ¹⁵	2 lb	1 lb	N/A	1 lb
Fish (canned)	N/A	N/A	N/A	30 oz
Legumes, dry ¹⁶	1 lb	1 lb	1 lb	1 lb
And/or Peanut butter	Or 18 oz	And 18 oz	Or 18 oz	And 18 oz

TABLE 3.—MAXIMUM MONTHLY ALLOWANCES OF SUPPLEMENTAL FOODS FOR CHILDREN AND WOMEN IN FOOD PACKAGE III

Foods ¹	Children	Women		
	1 through 4 years	Pregnant and partially breastfeeding (up to 1 year postpartum) ²	Postpartum (up to 6 months postpartum) ³	Fully breastfeeding (enhanced), (up to 1 year postpartum) ^{4,5}
Juice, single strength ⁶	128 fl. oz	144 fl. oz	96 fl. oz	144 fl. oz
WIC Formula ^{7,8}	455 fl. oz. liquid concentrate	455 fl. oz. liquid concentrate	455 fl. oz. liquid concentrate	455 fl. oz. liquid concentrate
Milk	16 qt ^{9,10,11,12}	22 qt ^{9,10,13,14}	16 qt ^{9,10,13,14}	24 qt ^{9,10,13,14}
Breakfast cereal ¹⁵	36 oz	36 oz	36 oz	36 oz
Cheese	N/A	N/A	N/A	1 lb
Eggs	1 dozen	1 dozen	1 dozen	2 dozen
Fruits and vegetables ^{16,17}	\$6.00 in cash value voucher	\$8.00 in cash value vouchers	\$8.00 in cash value vouchers	\$8.00 in cash value vouchers
Whole wheat bread ¹⁸	2 lb	1 lb	N/A	1 lb
Fish (canned)	N/A	N/A	N/A	30 oz
Legumes, dry ¹⁹	1 lb	1 lb	1 lb	1 lb
And/or Peanut butter	Or 18 oz	And 18 oz	Or 18 oz	And 18 oz

Nutrient	Units	1.00 X 3 oz 85g
Proximates		
Water	g	58.49
Energy	kcal	118
Energy	kJ	495
Protein	g	16.81
Total lipid (fat)	g	5.14
Ash	g	2.21
Carbohydrate, by difference	g	0.00
Fiber, total dietary	g	0.0
Sugars, total	g	0.00
Minerals		
Calcium, Ca	mg	181
Iron, Fe	mg	0.71
Magnesium, Mg	mg	29
Phosphorus, P	mg	280
Potassium, K	mg	277
Sodium, Na	mg	471
Zinc, Zn	mg	0.78
Copper, Cu	mg	0.087
Manganese, Mn	mg	0.017
Selenium, Se	mcg	28.2
Vitamins		
Vitamin C, total ascorbic acid	mg	0.0
Thiamin	mg	0.020
Riboflavin	mg	0.158
Niacin	mg	5.556
Pantothenic acid	mg	0.468
Vitamin B-6	mg	0.255
Folate, total	mcg	13
Folic acid	mcg	0
Folate, food	mcg	13
Folate, DFE	mcg_DFE	13
Vitamin B-12	mcg	3.74
Vitamin B-12, added	mcg	0.00
Vitamin A, IU	IU	48
Vitamin A, RAE	mcg_RAE	14
Retinol	mcg	14
Vitamin E (alpha-tocopherol)	mg	0.54
Vitamin E, added	mg	0.00
Tocopherol, beta	mg	0.00
Tocopherol, gamma	mg	0.00
Tocopherol, delta	mg	0.00
Vitamin D	IU	530
Vitamin K (phylloquinone)	mcg	0.3

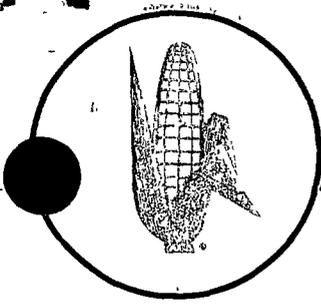
Attachment: B Fish, salmon, canned, solids with bone and liquid Refuse: 0% USDA National Nutrient Database for Standard Reference, Release 19 (2006)

NDB No: 15084 (Nutrient values and weights are for edible portion)

Lipids		
Fatty acids, total saturated	g	1305
4:0	g	0.000
6:0	g	0.000
8:0	g	0.000
10:0	g	0.000
12:0	g	0.000
14:0	g	0.041
16:0	g	1.148
18:0	g	0.115
Fatty acids, total monounsaturated	g	1.536
16:1 undifferentiated	g	0.396
18:1 undifferentiated	g	0.908
20:1	g	0.231
22:1 undifferentiated	g	0.015
Fatty acids, total polyunsaturated	g	1.742
18:2 undifferentiated	g	0.049
18:3 undifferentiated	g	0.049
18:4	g	0.115
20:4 undifferentiated	g	0.065
20:5 n-3	g	0.718
22:5 n-3	g	0.041
22:6 n-3	g	0.685
Cholesterol	mg	47
Amino acids		
Tryptophan	g	0.189
Threonine	g	0.737
Isoleucine	g	0.775
Leucine	g	1.367
Lysine	g	1.544
Methionine	g	0.498
Cystine	g	0.180
Phenylalanine	g	0.656
Tyrosine	g	0.568
Valine	g	0.866
Arginine	g	1.006
Histidine	g	0.495
Alanine	g	1.017
Aspartic acid	g	1.722
Glutamic acid	g	2.510
Glycine	g	0.807
Proline	g	0.594
Serine	g	0.686

Attachment: B (cont.) Fish, salmon, canned, solids with bone and liquid Refuse: 0% USDA National Nutrient Database for Standard Reference, Release 19 (2006)

NDB No: 15084 (Nutrient values and weights are for edible portion)



National
Corn Growers
Association
www.ncga.com

NOV - 3 2006

II-102

November 3, 2006

Patricia N. Daniels
United States Department of Agriculture
Supplemental Food Programs Division
Food and Nutrition Service
3101 Park Center Drive
Room 528
Alexandria, Virginia 22302

Dear Patricia:

We appreciate the opportunity to share our position on the recently proposed modifications to the criteria for cereals eligible for participation in the WIC program. Kellogg will likely be filing its own comments with USDA on this important issue, but we believe that it makes sense for all interested stakeholders to communicate their respective positions in the mean time.

While we recognize USDA's objective of providing nutritious cereal choices, we also believe that any such changes should result in maximizing delivery of important nutrients and nutritious food ingredients to populations served by the WIC program. As such, to the extent that a whole grain requirement is instituted, we believe that it must expand -- not shrink -- currently available nutritious options under the program.

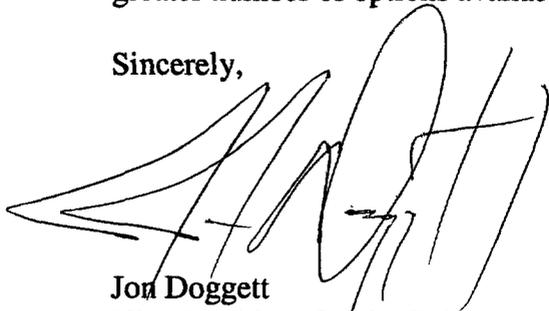
A number of rice- and corn-based ready-to-eat cereals currently meet WIC criteria because they are limited in sugar and provide substantial amounts of iron. They also are "good" or "excellent sources" of a number of vital nutrients, including nutrients that the Dietary Guidelines for Americans 2005 single out as "nutrients of concern" for particular populations. These cereals, which by their nature are not well-suited for reformulation into whole grain foods, nevertheless make important nutrition contributions to the diets of vulnerable populations and are key to preserving the choice and flexibility that are necessary to accommodate preferences based on culture and other factors. Institution of a whole grain threshold at any level will result in the elimination of a popular source of vital nutrients without necessarily resulting in a corresponding shift to whole grain cereals. Rather, fewer choices will likely result in selection of many inexpensive but less nutritious breakfast alternatives or, worse, skipping breakfast altogether. Clearly, this is counter to the core mission of WIC and the interests of the constituents served by the program.

NATIONAL OFFICE
632 Cepi Drive
Chesterfield, Missouri 63005
(636) 733-9004
FAX: (636) 733-9005

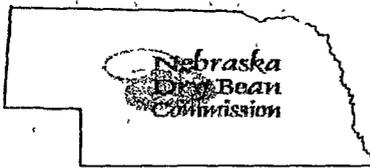
WASHINGTON DC OFFICE
122 C Street NW, Suite 510
Washington, DC 20001-2109
(202) 628-7001
FAX: (202) 628-1933

We urge adoption of inclusive and expansive eligibility criteria that will result in a greater number of options available to WIC program recipients.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jon Doggett', written over a horizontal line.

Jon Doggett
Vice President, Public Policy



4502 Ave I, Scottsbluff, NE 69361
Phone (308) 632-1258
Fax (308) 632-1371
E-mail: office@nebraskadrybean.com
Internet: www.nebraskadrybean.com

NOV - 3 2006

I-103

November 2, 2006

Patricia N. Daniels
Director, Supplemental Food Programs Division
USDA Food and Nutrition Service
3101 Park Center Drive, Room 528
Alexandria, VA 22302

RE: Docket ID Number 0584-AD77, WIC Food Packages Rule

Dear Ms. Daniels:

The U.S. Dry Bean Council strongly supports the rule changes proposed for WIC Food Packages by Food and Nutrition Service (FNS) as published in the Federal Register on August 7, 2006. The proposed amendments change the types and availabilities of numerous foods in the WIC Food Packages including packaged dry beans and canned beans. The U.S. Dry Bean Council commends FNS for developing these proposed changes because they more accurately reflect USDA's dietary recommendations, especially as relates to daily consumption of beans.

According to FNS' own estimates bean utilization in the program is expected to increase by approximately 2.5 times if canned beans are allowed in the program (Table 16; 71 Fed. Reg.44851). Additionally, FNS' analysis of the proposed rule changes recognizes that there is a modest increase in program costs associated with the addition of canned beans as an option. However, the analysis also recognizes (and we agree wholeheartedly) that the modest increase is more than compensated for by the benefits that enhanced bean consumption will provide to WIC participants through increasing daily dietary nutrition and in convenience of meal preparation.

The first obvious benefit of allowing canned beans in the food packages is that it will encourage greater consumption, which is consistent with the most recent U.S. Dietary Guidelines. Second, increased consumption of beans by postpartum women will help to better meet their special dietary needs by providing several priority nutrients, including but not limited to: protein, iron, folate, Vitamin E, and fiber. Third, recent research demonstrates that regular consumption of beans (at USDA's recommended levels) may reduce the risk of common chronic diseases such as heart disease, diabetes and certain cancers - as well help fight obesity (www.beansforhealth.org).

In closing, by adding variety and convenience, the canned bean option will undoubtedly increase the appeal of beans in WIC. It will also help support WIC participants that are looking for more and varied healthy food choices. And lastly, these changes supplement the diets of breastfeeding and postpartum women with several of the priority nutrients identified by the IOM. The long-term benefits of providing participants with the option of canned beans, thereby increasing bean consumption, will greatly aid WIC in improving the life-long health of its participants.

Mark Watson, Chairman
Alliance, Nebraska

Kenneth Rhoades, Vice-Chairman
Big Springs, Nebraska

David Howell, Treasurer
Morrill, Nebraska

Dale Eirich
Bayard, Nebraska

Mark Robertson
Alliance, Nebraska

Charles Witmer
Scottsbluff, Nebraska

Rodney Loose
Mitchell, Nebraska

Jack Revelle
Gering, Nebraska

Dave Brown
Champion, Nebraska

November 2, 2006

Thank you for your consideration of these comments. We look forward to helping spread the word about the new rule changes after implementation.

Sincerely,

A handwritten signature in black ink that reads "Mark Watson". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Mark Watson
Chairman

MW/lr

NOV - 3 2006

I-104

Via email: WICHQ-SFPD@fns.usda.gov.

November 2, 2006

Patricia N. Daniels, Director
Supplemental Food Programs, FNS/USDA
3101 Park Center Drive, Room 528
Alexandria, VA 22302

RE: Docket ID Number 0584-AD77, WIC Food Packages Rule

Dear Ms. Daniels:

Nutricia North America (Nutricia) is writing to support USDA's proposed WIC food packages Rule, which will:

- improve the health and nutritional quality of the foods in the program;
- expand cultural food options;
- more closely reflect the current dietary guideline of the Institute of Medicine
- increase participants' choices; and
- recognize the special dietary needs of certain individuals.

As a leader in clinical nutrition, Nutricia specializes in the manufacture, marketing and distribution of medical foods and infant formulas for the dietary management of rare genetic, metabolic, allergic gastrointestinal and neurological disorders. In fact, Nutricia created the first amino acid-based, hypoallergenic formulas (the Neocate product line) for cow milk protein allergy sufferers and has played a prominent role in educating the medical community through clinical trials and symposiums on cow milk allergy and its associated complications.

Since the food packages were last revised, there has been an explosion of knowledge related to the use of medical foods and formulas in the therapeutic management of certain diseases. And while we at Nutricia commend and wholeheartedly agree with your decision to establish a special category for "Participant's With Qualifying Conditions", we also take this opportunity to share some additional recommendations with you. To ensure that WIC participants can get the full value from the new WIC food packages, we offer the following recommendations to strengthen the proposed rule:

Recommendation #1

Regarding: Maximum Monthly Allowance of Exempt Infant Formula

Nutricia strongly recommends FNS also adopt the guidelines of Institute of Medicine (IOM) with respect to the maximum monthly allowances for Food Package III for infants ages birth through 11 months. The IOM recommends approximately 806 fl oz of formula per month. The IOM also recommends allowance for additional amounts based on nutritional need or eligibility."

Rationale: Infants with special dietary needs may need to consume an exempt infant formula as the sole source of nutrition beyond 6 months of age due to their special circumstances. Other foods may have to be excluded from their diet leaving the formula as the sole/main source of nutrition. Providing a lower and fixed amount of formula (696 fl oz reconstituted powder as proposed) for these babies, may severely under-serve these participants.

For example, an infant with multiple food allergies may not be able to start on solid foods until 8 months of age due to the severity of the allergies. When introducing foods, only a very limited variety may be available to the infant in order to avoid allergic reactions. These infants might have to rely on formula as the main source of nutrition for much longer than healthy infants in the comparable age group.

Recommendation #2.

Regarding: Monthly Allowances of Supplemental Foods for Children and Women in Food Package III; p 44818: Nutricia recommends that FNS considers providing medical food in Food Package III for children and women based on medical need rather than on total volume of reconstituted formula only. Furthermore Nutricia recommends FNS considers the recommendations of IOM for maximum monthly allowances for Food Package III. In its report, IOM recommends participants with special dietary needs receive about 806 fl oz of formula and additional amounts based on nutritional needs. This proposal would better support the needs of participants with special dietary needs.

For example, in the case of inborn errors of amino acid metabolism (e.g. PKU), medical foods needs are not based on calories, but protein needs. A maternal PKU patient might need 70 g of protein equivalent from medical food daily, resulting in a daily need of about 29 fl oz of reconstituted medical food and a monthly need of about 870 fl oz. Failure to adhere to the diet may have catastrophic effects on the unborn child (a syndrome typically called maternal PKU syndrome with congenital heart defects, small head circumference, low birth weight, mental retardation).

Or

A child with PKU may need to continue receiving special formula rather than milk beyond the first year of life with each child's need being unique. A medical food/ WIC Formula allowance based on volume may under-serve this child's needs.

Rationale: The current proposal of 455 fl oz of liquid concentrate might not meet the needs of participants with special dietary needs.

Recommendation #3

Regarding: Physical Forms (e.g. bars, capsules, gels) for those medically fragile participants served by Food Package III.

Nutricia recommends that FNS consider adopting alternate equivalent standards to determine maximum monthly food allowances for some categories of participants in Food Package III.

Rationale: Certain groups of medically fragile participants such as metabolic patients with inherited amino acid disorders should have their maximum daily allowance of medical foods/formula based on their protein needs and not on their caloric requirements or set volume of liquid concentrate formula. The requirement of medical food/formula for participants such as these is based on the individuals' tolerance for natural protein whereas the remaining protein is covered by medical food/formula. Therefore, the maximum allowance of new physical forms for patients with amino acid metabolism disorders should be based on a comparable protein equivalent basis (new form versus powder form). Likewise, new forms of medical foods for participants with other special dietary needs might have to be based on different parameters.

Recommendation #4

Regarding: Nutritional Standards of Formulas: Nutricia applauds the Agency for following the Dietary Guidelines for Americans and providing healthy food for WIC participants. However, we recommend that the FNS take these guidelines even further by setting nutritional guidelines for WIC eligible formulas, especially for exempt infant formulas and medical foods.

Rationale: In many instances these products are used as the sole source of nutrition due to the age and medical condition of the participant. For this reason they should therefore be scrutinized more carefully.

We recommend that FNS also consider the following:

- Saturated fatty acids and trans fatty acids according to the Dietary Guidelines for Americans (saturated fatty acids less than 10% of calories; trans fatty acids as low as possible)
- Insuring that in cases where formulas are the sole source of nutrition, the formula covers a WIC participant's micronutrient needs.

In summary, we strongly endorse the need for the new WIC food packages and urge USDA to proceed expeditiously to analyze the comments, make the necessary changes, and quickly move forward with the process of bringing a new, healthier food package to the more than 8 million women, infants and children in the WIC program each month. Thank you for this opportunity to share our support for the new WIC food packages and our recommendations to make it stronger still. Likewise as a leader in the development and manufacture of medical foods and formulas, we would welcome an opportunity to become more involved in the decision making process.

If you have any questions, please do not hesitate to call me at 301-795-2264.

Sincerely,



Ulrike Reichert, MS
Nutricia North America

NOV - 3 2006



I-105

November 3, 2006

Ms. Patricia N. Daniels, Director
Supplemental Food Programs Division
Food and Nutrition Service, USDA
3101 Park Center Drive, Room 528
Alexandria, Virginia 22302

Re: Docket ID Number 0584-AD77, WIC Food Packages Rule

Dear Ms. Daniels,

The Iowa State Dairy Association opposes USDA's proposal to reduce the amount of options of milk substitution within the dairy group. The proposal suggests allowing tofu and fortified soy-based beverages as a substitute for milk. The nutritional value of these products is not equivalent to the great benefits dairy provides in a healthy diet. We believe a better, healthier option would be to make yogurt, lactose-free and lactose-reduced milk substitutes available.

This proposal would be nutritionally unbeneficial for participants in the WIC program. Dairy products are an important contributor of dietary calcium and are just as important for women as they are children in a healthy diet. By not allowing yogurt, lactose-free and lactose-reduced milk as substitutes for milk, which may be much more popular than soy-beverage or tofu, WIC participants may not purchase any of the items. This could eventually lead them to a diet deprived of the important nutrients provided by dairy.

We encourage you to reconsider this portion of your proposal. WIC participants' nutritional needs could be better met by offering more dairy substitutions for milk.

Thank you for your time and consideration.

Sincerely,

Iowa State Dairy Association



NOV 03 2006

November 3, 2006

Patricia N. Daniels
Director, Supplemental Food Programs Division
USDA Food and Nutrition Service
3101 Park Center Drive, Room 528
Alexandria, VA 22302

I-106

RE: Docket ID Number 0584-AD77. WIC Food Packages Rule

Dear Ms. Daniels:

Kelley Bean Co., Inc. strongly supports the rule changes proposed for WIC Food Packages by Food and Nutrition Service (FNS) as published in the Federal Register on August 7, 2006. The proposed amendments change the types of availabilities of numerous foods in the WIC Food Packages including packaged dry beans and canned beans. Kelley Bean Co., Inc. commends FNS for developing these proposed changes because they more accurately reflect USDA's dietary recommendations, especially as relates to daily consumption of beans:

According to FNS' own estimates, bean utilization in the program is expected to increase by approximately 2.5 times if canned beans are allowed in the program (Table 16:71 Fed. Reg. 44851). Additionally, FNS' analysis of the proposed rule changes recognizes that there is a modest increase in program costs associated with the addition of canned beans as an option. However, the analysis also recognized (and we agree wholeheartedly) that the modest increase is more than compensated for by the benefits that enhanced bean consumption will provide to WIC participants through increasing daily dietary nutrition and in convenience of meal preparation.

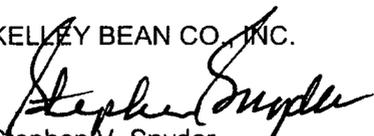
The first obvious benefit of allowing canned beans in the food packages is that it will encourage greater consumption, which is consistent with the most recent U.S. Dietary Guidelines. Second, increased consumption of beans by postpartum women will help to better meet their special dietary needs by providing several priority nutrients, including but not limited to: protein, iron, folate, Vitamin E, and fiber. Third, recent research demonstrates that regular consumption of beans (at USDA's recommended levels) may reduce the risk of common chronic diseases such as heart disease, diabetes, and certain cancers – as well help fight obesity (www.beansforhealth.org)

In closing, by adding variety and convenience, the canned bean option will undoubtedly increase the appeal of beans in WIC. It will also help support WIC participants that are looking for more and varied healthy food choices. And lastly, these changes supplement the diets of breastfeeding and postpartum women with several of the priority nutrients identified by the IOM. The long-term benefits of providing participants with the option of canned beans, thereby increasing bean consumption, will greatly aid WIC in improving the life-long health of its participants.

Thank you for your consideration of these comments. We look forward to helping spread the word about the new rule changes after implementation.

Sincerely,

KELLEY BEAN CO., INC.


Stephen V. Snyder
Sales Manager



NOV - 3 2006

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November 3, 2006

Patricia N. Daniels
Director, Supplemental Food Programs Division
USDA Food and Nutrition Service
3101 Park Center Drive, Room 528
Alexandria, VA 22302

I-107

RE: Docket ID Number 0584-AD77, WIC Food Packages Rule

Dear Ms. Daniels:

The California Dry Bean Advisory Board strongly supports the rule changes proposed for WIC Food Packages by Food and Nutrition Service (FNS) as published in the Federal Register on August 7, 2006. The proposed amendments change the types and availabilities of numerous foods in the WIC Food Packages including packaged dry beans and canned beans. The California Dry Bean Board commends FNS for developing these proposed changes because they more accurately reflect USDA's dietary recommendations, especially as relates to daily consumption of beans.

According to FNS' own estimates bean utilization in the program is expected to increase by approximately 2.5 times if canned beans are allowed in the program (Table 16; 71 Fed. Reg.44851). Additionally, FNS' analysis of the proposed rule changes recognizes that there is a modest increase in program costs associated with the addition of canned beans as an option. However, the analysis also recognizes (and we agree wholeheartedly) that the modest increase is more than compensated for by the benefits that enhanced bean consumption will provide to WIC participants through increasing daily dietary nutrition and in convenience of meal preparation.

The first obvious benefit of allowing canned beans in the food packages is that it will encourage greater consumption, which is consistent with the most recent U.S. Dietary Guidelines. Second, increased consumption of beans by postpartum women will help to better meet their special dietary needs by providing several priority nutrients, including but not limited to: protein, iron, folate, Vitamin E, and fiber. Third, recent research demonstrates that regular consumption of beans (at USDA's recommended levels) may reduce the risk of common chronic diseases such as heart disease, diabetes and certain cancers - as well help fight obesity (www.beansforhealth.org).

In closing, by adding variety and convenience, the canned bean option will undoubtedly increase the appeal of beans in WIC. It will also help support WIC participants that are looking for more and varied healthy food choices. And lastly, these changes supplement the diets of breastfeeding and postpartum women with several of the priority nutrients identified by the IOM. The long-term benefits of providing participants with the option of canned beans, thereby increasing bean consumption, will greatly aid WIC in improving the life-long health of its participants.

Thank you for your consideration of these comments. We look forward to helping spread the word about the new rule changes after implementation.

Sincerely,

Larry Chesini
Board Chairman





Kirkpatrick & Lockhart Nicholson Graham LLP

NOV - 3 2006

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November 3, 2006

Via Electronic Transmission and Overnight Delivery

Patricia N. Daniels, Director
Supplemental Food Programs Division
Food and Nutrition Service, USDA
3101 Park Center Drive, Room 528
Alexandria, VA 22302

Re: USDA Docket ID Number 0584-AD77, Proposed Rule: Revisions in the WIC Food Packages

Dear Ms. Daniels:

On behalf of a client, we respectfully submit these comments with respect to the proposed rule issued by the Food and Nutrition Service ("FNS") of the United States Department of Agriculture ("USDA") entitled, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Revisions in the WIC Food Packages" ("proposed rule"). This proposed rule was published in the Federal Register on August 7, 2006.¹

We commend the FNS for undertaking this major revision to the WIC Program to better reflect current nutrition science and dietary recommendations and respectfully offer the following comments to the portion of the proposed rule addressing juice in Food Package II.

Juice in WIC Food Package II

The WIC program, as currently implemented, does not provide juice for infants from birth to 4 months (i.e., Food Package I), but makes juice available from 4 months to 11 months (i.e., Food Package II). The proposed rule, if finalized as written, would remove juice entirely from Food Package II.² We encourage the FNS to reconsider this position and to return juice to the program in Food Package II (after 6 months of age).

¹ 71 Fed. Reg. 44784 (to be codified at 7 C.F.R. Part 246).

² See 71 Fed. Reg. at 44789, Ex. B.

I-108



Kirkpatrick & Lockhart Nicholson Graham LLP

Patricia N. Daniels

November 3, 2006

Page 2

We agree that there is potential for the over use of juice to allow less room for more nutritious foods in an infant's diet; however we believe there continues to be a role for juice in the diet of the infant between 6 months and 11 months. The WIC population, in particular, is vulnerable to insufficient intake of fruits and vegetables.³ We believe 100% fruit juice can and should serve as an occasional serving of fruit to help achieve the dietary goal of 5 or more servings of fruits and vegetables a day and introduce the infant to different flavors.

The proposed elimination of juice from Food Package II seems to reflect both an underestimation of the contribution of such juices to the diet and an overestimation of the willingness and ability of WIC participants to consume fruits and vegetables in other ways. While we understand that fruit juice was removed from the newly proposed WIC packages to make room for the addition of fruit and vegetables, we are concerned that the result of this change may actually lead to a reduction in the consumption of priority nutrients. 100% juice is a more nutritious alternative than the sugary fruit drinks that may be used if 100% juice is not available.

Furthermore, while it is clearly an admirable goal to require that the entire 5 servings come from whole fruits or vegetables, the practical reality is that infants often do not eat in predictable amounts. The convenience and appeal of 100% juice products make it a natural choice as a periodic substitute for one of the servings. A 4 ounce serving of 100% fruit juice translates into one of the 5 servings. Thus, 100% juice can be a healthy part of an infant's diet, if it is provided in appropriate amounts.

We believe juice can be returned to the WIC program consistent with the AAP recommendations that juice not be introduced before 6 months.⁴ Also consistent with this recommendation, we believe WIC participants should be educated that juice should not be provided in bottles or easily transportable covered cups that could encourage consumption throughout the day, and that no juice should be provided at bedtime. Within these constraints, 100% juice that is pasteurized and contains no added sugar has a role in the diet of the infant.

Finally, as noted by Welch Foods Inc. in their submitted comments to the FNS Advance Notice of Proposed Rulemaking on Revisions to the WIC Food Packages, juice is one of the more popular components of the WIC food package, often acting as an incentive to enroll women who are pregnant, breastfeeding, post-partum, or who are caring for infants or young children.⁵ Once

³ IOM Report at 101-02.

⁴ American Academy of Pediatrics, Committee on Nutrition, *The Use and Misuse of Fruit Juice in Pediatrics*, 107 Pediatrics 1210-1213 (2001).

⁵ 68 Fed. Reg. 53903 (Sept. 15, 2003), Docket 0584-AD39, I-6 (Dec. 15, 2003).



Kirkpatrick & Lockhart Nicholson Graham LLP

Patricia N. Daniels

November 3, 2006

Page 3

in the WIC Program, there is constant screening for health risk conditions, counseling, and measurements of developmental growth. Eliminating juice from the WIC package for infants could reduce the number of applicants to WIC, resulting in less than adequate health care.

For these reasons, we ask that the FNS reconsider its proposal to remove juice from WIC Food Package II. We recommend that juice be allowed back into the WIC program after 6 months of age, with additional education as to appropriate usage and amounts.

* * *

We appreciate the opportunity to provide these comments and welcome any questions the FNS may have.

Sincerely,

A handwritten signature in cursive script that reads "Suzan Ouel".

Suzan Ouel

SO:rk

Nestlé USA

NOV - 3 2006



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ROB CASE
PRESIDENT
NESTLÉ BEVERAGE

Nestleusa.com

I-109

November 1, 2006

Patricia N. Daniels, Director
Supplemental Food Programs Division
Food and Nutrition Service, USDA
3101 Park Center Drive
Room 528
Alexandria, VA 22302

Dear Ms. Daniels:

The Beverage Division of Nestlé, USA appreciates the opportunity to provide comments on the Proposed Rule: *Special Supplemental Program for Women, Infants and Children (WIC): Revisions in the WIC Food Packages*. Nestlé generally supports the proposed revisions that align the monthly juice allotments for infants and children with the American Academy of Pediatrics (AAP) recommendations.¹ We also fully support the Department's recommendation to add fruits and vegetables to Food Packages III through VII. While we have concerns about client access and the ability of participants in some areas to properly store fresh fruits and vegetables, we agree this proposal is a step in the right direction. It will help WIC Program participants develop good long-term eating habits thereby achieving a healthier diet.

However, we firmly maintain that 100% juice that provides 30 mg of vitamin C in 100 ml is an important part of the WIC Food package and should remain so. The WIC Program should strive to strike the appropriate balance between economic and nutritional needs. One hundred percent fruit juice offers the nutritional benefit of vitamin C at a lower cost than many fresh fruits or processed fruit.

Vitamin C was identified as a critically important target nutrient when the WIC program was first established. As a water-soluble vitamin, a daily requirement for vitamin C has been set to ensure adequate intake. This requirement can be met daily by offering 100% fruit juice that provides 30 mg of vitamin C in 100 ml. The addition of fruits and vegetables will add fiber content to the diet, but many choices may not provide a good source of vitamin C. Continuing to offer adequate amounts of 100% fruit juice, which is an excellent source of vitamin C, will ensure participants receive the vitamin C content recommended in the food package. Moreover, ensuring juice remains an important food item within the WIC program will help assure that program participants learn and maintain good eating habits by drinking 100% juice rather than other less nutritious juice *flavored* drinks or carbonated beverages.

(continued next page)

¹ AAP Committee on Nutrition, "The Use and Misuse of Fruit Juice in Pediatrics," *Pediatrics* Vol. 107, No. 5, May 2001.

The 2005 Dietary Advisory Committee Report, which served as the scientific basis for the latest Dietary Guidelines for Americans, acknowledged, "Fruit juices provide substantial contributions of several minerals and vitamins in higher amounts than do whole fruits." These include vitamin C, potassium and magnesium.² Quality 100 percent fruit juice that provides a minimum 30 mg of vitamin C remains a favorite food item for WIC participants. It comes in convenient packages ensuring little or no waste; it is a product participants enjoy which ensures targeted nutrients are in fact consumed; and it is available at relatively low cost.

Specific Recommendations

Nestlé recommends that Pregnant, Partially Breastfeeding and Fully Breastfeeding Women be allowed to substitute one serving of fruits and vegetables a day with 6 ounces of 100% fruit or vegetable juice. This would ensure an adequate vitamin C intake on a daily basis as not all fruits and vegetables provide a good source of vitamin C. Based on one serving per day, this would require a maximum allowance of 192³ oz. per month.

Non-Breastfeeding Postpartum Women are at less nutritional risk than Post Partum or Breastfeeding women. This does provide some justification for deviating from the Dietary Guidelines. Therefore, it may be appropriate to reduce the maximum allowance for this category. The recommendation of 3.2 oz per day in the proposal appears to be an arbitrary reduction in the maximum allowance of juice. We understand the primary rationale for reducing the amount of juice for this category is the expectation that Non-Breastfeeding, Postpartum Women will meet their daily need for vitamin C through the addition of fruits and vegetables. We caution, however, that it is not a given and may be optimistic that many women will in fact replace their reduced daily vitamin C intake from juice by increasing consumption of fruits and vegetables containing vitamin C. Therefore we recommend 4.8⁴ ounces of fruit or vegetable juice rather than the maximum 3.2 fluid ounces per day contained in the proposed rule. This would require a maximum allowance of 144 oz. per month.

For children ages one through four, we recommend the WIC Program permit 6 ounces of 100% juice per day that provides 30 mg of vitamin C in 100 ml. This falls within the American Academy of Pediatrics (AAP) guidelines, which recommends 4 to 6 ounces of 100% fruit juice per day to children 1 to 6 years of age⁵. Fruit juice consumption in moderation is an important part of a healthy diet and will benefit children in the WIC Program as they develop eating habits that will last a lifetime. One hundred percent fruit juice offers the nutritional benefit of vitamin C at a lower cost than many fresh fruits or processed fruit. Moreover, it is appealing to children – they like to drink it, which ensures they receive the recommended daily requirement amount of Vitamin C. Based on one 6 oz. serving per day, this would require a maximum allowance of 192⁶ oz. per month.

(continued next page)

² Dietary Guidelines Advisory Committee Report 2005: Appendix G: Fruit and Fruit Juice Analysis)

³ This recommended maximum takes into consideration current package sizes for juice. See discussion below. If package sizes are not considered when establishing maximum allowances, participants will in many instances be unable to receive the maximum monthly allowance

⁴ Id.

⁵ Supra note 1

⁶ Supra note 3 and accompanying text.

Practical Considerations

While sound nutritional science must be the basis for establishing food offerings in the WIC program, practical realities should also be considered. For example, when setting maximum food allowances in regulatory store, the Department should consider the package sizes available in stores. Based on current packaging of juice in 46, 48 and 64 ounce containers, we recommend that the maximum monthly allowance be increased to ensure participants receive the full nutritional benefit recommended in the Department's proposal. If container sizes are not taken into consideration, most participants will not receive the full nutritional benefit contemplated under the proposed rule. If we start with current container sizes and then round up to the nearest whole container, participants would receive the full nutritional benefit of juice with the following recommended monthly allowances:

Prenatal/Partial Breastfeeding or Fully Breastfeeding Women- 192 fluid ounces
Non-Breastfeeding Postpartum Women -144 fluid ounces
Children -192 fluid ounces

This point requires additional detailed explanation. Below is a discussion of the effect of container sizes on the nutritional benefit received by WIC participants based upon the recommended monthly allowances for juice.

Prenatal/Partial Breastfeeding or Fully Breastfeeding Women

The proposal would establish a maximum monthly allowance for juice of 144 fluid ounces for pregnant and partially or fully breastfeeding mothers. Based upon currently available container sizes for 100 percent juice, the actual amount of juice received by participants would be:

- 138 oz. per month or 4.6 oz. per day (3-46 oz. containers = 138)
- 144 oz. per month or 4.8 oz. per day (3-48 oz. containers = 144)
- 128 oz. per month or 4.2 oz. per day (2-64 oz. containers = 128)

Setting the maximum monthly allowance at 192 fluid ounces would allow participants to *actually* receive the following amount of juice:

- 184 oz. per month or 6.1 oz. per day (4-46 oz. containers = 184)
- 192 oz. per month or 6.4oz. per day (4-48 oz. containers = 192)
- 192 oz. per month or 6.4 oz. per day (3-64 oz. containers = 192)

Non-Breastfeeding Postpartum Woman

The proposal would establish a maximum monthly allowance for juice of 96 fluid ounces for women up to six months postpartum who do not breastfeed. Based upon currently available container sizes, the actual amount of juice received by participants would be:

- 92 oz. per month or 3 oz. per day (2-46 oz containers = 92)
- 96 oz. per month or 3.2 oz. per day (2-48 oz containers = 96)
- 64 oz. per month or 2.1 oz. per day (1-64 oz. container = 64)

(continued next page)

Setting the maximum monthly allowance at 144 fluid ounces would allow participants to *actually* receive the following amount of juice:

- 138 oz. per month or 4.6 oz. per day (3-46 oz. containers = 138)
- 144 oz. per month or 4.8 oz. per day (3-48 oz. containers = 144)
- 128 oz. per month or 4.3 oz. per day (2-64 oz. containers = 128)

Children Ages One Through Four

The proposal would establish a maximum monthly allowance for juice of 128 fluid ounces for children through the age of four. Based upon currently available container sizes, the actual amount of juice received by children would be:

- 92 oz. per month or 3 oz. per day (2-46 oz. containers = 92)
- 96 oz. per month or 3.2 oz. per day (2-48 oz. containers = 96)
- 128 oz. per month or 4.3 oz. per day (2-64 oz. container = 128)

Setting the maximum monthly allowance at 192 fluid ounces would allow participants to *actually* receive the following amount of juice:

- 184 oz. per month or 6.1 oz. per day (4-46 oz. containers = 184)
- 192 oz. per month or 6.4 oz. per day (4-48 oz. containers = 192)
- 192 oz. per month or 6.4 oz. per day (3-64 oz. containers = 192)

While slightly above the AAP guidelines for juice consumption by children, our recommendations are nonetheless consistent with the AAP recommendations. The Department's proposal would likely result in most children receiving less juice than what is recommended in the AAP guidelines.

Use of PET Bottles

To meet clear consumer preference and "best in class packaging," we strongly suggest USDA recommend, or in fact require, that State programs authorize PET bottles rather than metal cans. In states where both 46 oz. cans and 46 oz. PET bottles are offered on WIC, we sell more juice in PET bottles than cans. This demonstrated WIC consumer preference for PET bottles is consistent with consumer preference observed with non-WIC consumers.

In addition, many retailers prefer to only stock juice in 46 ounce PET bottles precisely because consumers prefer these containers. Many retailers would not stock juice in 46 oz. cans if they were not required to do so because of WIC vendor stocking requirements. We have received feedback from many of our retailers that we need to do more to convince State WIC offices to allow PET bottles. In response, we have contacted State WIC offices in states that only allow 46 oz. cans to request the addition of PET bottles with limited success. As part of this process, we have encouraged these retailers to share their concerns directly with USDA.

There is a nutritional benefit to using PET containers as well. There is less loss of vitamin C and other nutrients with an easily re-sealable container when compared to an open can that is not covered properly when stored in the refrigerator.

(continued next page)

Letter to Patricia N. Daniels
November 1, 2006
Page 5 of 5

Blended and Fortified Juices and Pasteurization

We are pleased the Department's proposal specifically noted that authorized juices can be a blend of juices and that juices fortified with other nutrients may be allowed. However, we strongly recommend this option be available to all WIC participants and not limited as a State Agency option. State Agency restrictions on blended juice unnecessarily restrict WIC participants' juice options and preferences. Furthermore, these restrictions can often result in more rather than less consumer confusion at the point of purchase. Authorizing all flavors of a single, clearly identified brand, widely known and labeled as 100 percent juice, results in less consumer confusion than authorizing specific flavors for different brands.

It has been our experience that some states arbitrarily restrict juice options for WIC participants without adequate justification. In many instances, states have been unable to explain their official prohibition against authorizing blended juices but have still refused to change this particular policy. These restrictions only serve to penalize WIC participants by unnecessarily limiting juice choices. The primary consideration should be to emphasize that juices can only be authorized if they contain 100% fruit juice with the required vitamin C content.

We also agree with and fully support the requirement that juices be pasteurized. This requirement is in fact a sound public health policy.

We hope you will find these comments helpful as you finalize the WIC Food Package Rules.

Sincerely,



Rob Case
President
Beverage Division
Nestlé USA

RC:tk

Attachment:

- (1) AAP Committee on Nutrition, "The Use and Misuse of Fruit Juice in Pediatrics." Peds Vol. 107 No.5, May 2001

AMERICAN ACADEMY OF PEDIATRICS

Committee on Nutrition

The Use and Misuse of Fruit Juice in Pediatrics

ABSTRACT. Historically, fruit juice was recommended by pediatricians as a source of vitamin C and an extra source of water for healthy infants and young children as their diets expanded to include solid foods with higher renal solute. Fruit juice is marketed as a healthy, natural source of vitamins and, in some instances, calcium. Because juice tastes good, children readily accept it. Although juice consumption has some benefits, it also has potential detrimental effects. Pediatricians need to be knowledgeable about juice to inform parents and patients on its appropriate uses.

ABBREVIATIONS. FDA, Food and Drug Administration; AAP, American Academy of Pediatrics.

INTRODUCTION

In 1997, US consumers spent almost \$5 billion on refrigerated and bottled juice.¹ Mean juice consumption in America is more than 2 billion gal/y or 9.2 gal/y per person.² Children are the single largest group of juice consumers. Children younger than 12 years account for only about 18% of the total population but consume 28% of all juice and juice drinks.³ By 1 year of age, almost 90% of infants consume juice. The mean daily juice consumption by infants is approximately 2 oz/d, but 2% consume more than 16 oz/d, and 1% of infants consume more than 21 oz/d.^{2,4,5} Toddlers consume a mean of approximately 6 oz/d.² Ten percent of children 2 to 3 years old and 8% of children 4 to 5 years old drink on average more than 12 oz/d.² Adolescents consume the least, accounting for only 10% of juice consumption.

DEFINITIONS

To be labeled as a fruit juice, the Food and Drug Administration (FDA) mandates that a product be 100% fruit juice. For juices reconstituted from concentrate, the label must state that the product is reconstituted from concentrate. Any beverage that is less than 100% fruit juice must list the percentage of the product that is fruit juice, and the beverage must include a descriptive term, such as "drink," "beverage," or "cocktail." In general, juice drinks contain between 10% and 99% juice and added sweeteners, flavors, and sometimes fortifiers, such as vitamin C or calcium. These ingredients must be listed on the label, according to FDA regulations.

The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.
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COMPOSITION OF FRUIT JUICE

Water is the predominant component of fruit juice. Carbohydrates, including sucrose, fructose, glucose, and sorbitol, are the next most prevalent nutrient in juice. The carbohydrate concentration varies from 11 g/100 mL (0.44 kcal/mL) to more than 16 g/100 mL (0.64 kcal/mL). Human milk and standard infant formulas have a carbohydrate concentration of 7 g/100 mL.

Juice contains a small amount of protein and minerals. Juices fortified with calcium have approximately the same calcium content as milk but lack other nutrients present in milk. Some juices have high contents of potassium, vitamin A, and vitamin C. In addition, some juices and juice drinks are fortified with vitamin C. The vitamin C and flavonoids in juice may have beneficial long-term health effects, such as decreasing the risk of cancer and heart disease.^{6,7} Drinks that contain ascorbic acid consumed simultaneously with food can increase iron absorption by twofold.^{8,9} This may be important for children who consume diets with low iron bioavailability.

Juice contains no fat or cholesterol, and unless the pulp is included, it contains no fiber. The fluoride concentration of juice and juice drinks varies. One study found fluoride ion concentrations ranged from 0.02 to 2.8 parts per million.¹⁰ The fluoride content of concentrated juice varies with the fluoride content of the water used to reconstitute the juice.

Grapefruit juice contains substances that suppress a cytochrome P-450 enzyme in the small bowel wall. This results in altered absorption of some drugs, such as cisapride, calcium antagonists, and cyclosporin.¹¹⁻¹³ Grapefruit juice should not be consumed when these drugs are used.

Some manufacturers specifically produce juice for infants. These juices do not contain sulfites or added sugars and are more expensive than regular fruit juice.

ABSORPTION OF CARBOHYDRATE FROM JUICE

The 4 major sugars in juice are sucrose, glucose, fructose, and sorbitol. Sucrose is a disaccharide that is hydrolyzed into 2 component monosaccharides, glucose and fructose, by sucrase present in the small bowel epithelium. Glucose is then absorbed rapidly via an active-carrier-mediated process in the brush border of the small bowel. Fructose is absorbed by a facilitated transport mechanism via a carrier but not against a concentration gradient. In addition, fructose may be absorbed by a disaccharidase-related transport system, because the absorption of fructose

is more efficient in the presence of glucose, with maximal absorption occurring when fructose and glucose are present in equimolar concentrations.¹⁴ Clinical studies have demonstrated this, with more apparent malabsorption when fructose concentration exceeds that of glucose (eg, apple and pear juice) than when the 2 sugars are present in equal concentrations (eg, white grape juice).^{15,16} However, when provided in appropriate amounts (10 mL/kg of body weight), these different juices are absorbed equally as well.¹⁷ Sorbitol is absorbed via passive diffusion at slow rates, resulting in much of the ingested sorbitol being unabsorbed.¹⁸

Carbohydrate that is not absorbed in the small intestine is fermented by bacteria in the colon. This bacterial fermentation results in the production of hydrogen, carbon dioxide, methane, and the short-chain fatty acids—acetic, propionic, and butyric. Some of these gases and fatty acids are reabsorbed through the colonic epithelium, and in this way, a portion of the malabsorbed carbohydrate can be scavenged.¹⁹ Nonabsorbed carbohydrate presents an osmotic load to the gastrointestinal tract, which causes diarrhea.²⁰

Malabsorption of carbohydrate in juice, especially when consumed in excessive amounts, can result in chronic diarrhea, flatulence, bloating, and abdominal pain.^{21–27} Fructose and sorbitol have been implicated most commonly,^{15,16,28–30} but the ratios of specific carbohydrates may also be important.³¹ The malabsorption of carbohydrate that can result from large intakes of juice is the basis for some health care providers to recommend juice for the treatment of constipation.³²

JUICE IN THE FOOD GUIDE PYRAMID

Fruit is 1 of the 5 major food groups in the Food Guide Pyramid.³³ It is recommended that children consuming approximately 1600 kcal/d (depending on size, 1–4 years old) should have 2 fruit servings and those consuming 2800 kcal/d (depending on size, 10–18 years old) should consume 4 fruit servings. Half of these servings can be provided in the form of fruit juice (not fruit drinks). A 6-oz glass of fruit juice equals 1 fruit serving. Fruit juice offers no nutritional advantage over whole fruit. In fact, fruit juice lacks the fiber of whole fruit. Kilocalorie for kilocalorie, fruit juice can be consumed more quickly than whole fruit. Reliance on fruit juice instead of whole fruit to provide the recommended daily intake of fruits does not promote eating behaviors associated with consumption of whole fruits.

MICROBIAL SAFETY OF JUICE

Only pasteurized juice is safe for infants, children, and adolescents. Pasteurized fruit juices are free of microorganisms. Unpasteurized juice may contain pathogens, such as *Escherichia coli* and *Salmonella* and *Cryptosporidium* organisms.³⁴ These organisms can cause serious disease, such as hemolytic-uremic syndrome, and should never be given to infants and children. Unpasteurized juice must contain a warning on the label that the product may contain harmful bacteria.³⁵

INFANTS

The American Academy of Pediatrics (AAP) recommends that breast milk be the only nutrient fed to infants until 4 to 6 months of age.³⁶ For mothers who cannot breastfeed or choose not to breastfeed, a prepared infant formula can be used and is a complete source of nutrition. No additional nutrients are needed. There is no nutritional indication to feed juice to infants younger than 6 months. Offering juice before solid foods are introduced into the diet could risk having juice replace breast milk or infant formula in the diet. This can result in reduced intake of protein, fat, vitamins, and minerals such as iron, calcium, and zinc.³⁷ Malnutrition and short stature in children have been associated with excessive consumption of juice.^{4,38}

After approximately 4 to 6 months of age, solid foods can be introduced into the diets of infants. The AAP recommends that single-ingredient foods be chosen and introduced 1 at a time at weekly intervals. Iron-fortified infant cereals or pureed meats are good choices for first weaning foods. Because foods high in iron are recommended as weaning foods, beverages that contain vitamin C do not offer a nutritional advantage for iron-sufficient individuals.

It is prudent to give juice only to infants who can drink from a cup (approximately 6 months or older). Teeth begin to erupt at approximately 6 months of age. Dental caries have also been associated with juice consumption.³⁹ Prolonged exposure of the teeth to the sugars in juice is a major contributing factor to dental caries. The AAP and the American Academy of Pediatrics recommendations state that juice should be offered to infants in a cup, not a bottle, and that infants not be put to bed with a bottle in their mouth.⁴⁰ The practice of allowing children to carry a bottle, cup, or box of juice around throughout the day leads to excessive exposure of the teeth to carbohydrate, which promotes development of dental caries.

Fruit juice should be used as part of a meal or snack. It should not be sipped throughout the day or used as a means to pacify an unhappy infant or child. Because infants consume fewer than 1600 kcal/d, 4 to 6 oz of juice per day, representing 1 food serving of fruit, is more than adequate. Infants can be encouraged to consume whole fruits that are mashed or pureed.

The AAP practice guideline on the management of acute gastroenteritis in young children recommends that only oral electrolyte solutions be used to rehydrate infants and young children and that a normal diet be continued throughout an episode of gastroenteritis.⁴¹ Surveys show that many health care providers do not follow the recommended procedures for management of diarrhea.⁴² The high carbohydrate content of juice (11–16 g %), compared with oral electrolyte solutions (2.5–3 g %), may exceed the intestine's ability to absorb carbohydrate, resulting in carbohydrate malabsorption. Carbohydrate malabsorption causes osmotic diarrhea, increasing the severity of the diarrhea already present.⁴³ Fruit juice is low in electrolytes. The sodium concentration is 1

to 3 mEq/L. Stool sodium concentration in children with acute diarrhea is 20 to 40 mEq/L. Oral electrolyte solutions contain 40 to 45 mEq/L of sodium. As a replacement for fluid losses, juice may predispose infants to development of hyponatremia.

In the past, there was concern that infants who were fed orange juice were likely to develop an allergy to it. The development of a perioral rash in some infants after being fed freshly squeezed citrus juice is most likely a contact dermatitis attributable to peel oils.⁴⁴ Diarrhea and other gastrointestinal symptoms observed in some infants were most likely attributable to carbohydrate malabsorption. Although allergies to fruit may develop early in life, they are uncommon.⁴⁵

TODDLERS AND YOUNG CHILDREN

Most issues relevant to juice intake for infants are also relevant for toddlers and young children. Fruit juice and fruit drinks are easily overconsumed by toddlers and young children because they taste good. In addition, they are conveniently packaged or can be placed in a bottle and carried around during the day. Because juice is viewed as nutritious, limits on consumption are not usually set by parents. Like soda, it can contribute to energy imbalance. High intakes of juice can contribute to diarrhea, overnutrition or undernutrition, and development of dental caries.

OLDER CHILDREN AND ADOLESCENTS

Juice consumption presents fewer nutritional issues for older children and adolescents, because they consume less of these beverages. Nevertheless, it seems prudent to limit juice intake to two 6-oz servings, or half of the recommended fruit servings each day. It is important to encourage consumption of the whole fruit for the benefit of fiber intake and a longer time to consume the same kilocalories.

Excessive juice consumption and the resultant increase in energy intake may contribute to the development of obesity. One study found a link between juice intake in excess of 12 oz/d and obesity.⁴ Other studies, however, found that children who consumed greater amounts of juice were taller and had lower body mass index than those who consumed less juice⁴⁶ or found no relationship between juice intake and growth parameters.⁴⁷ More research is needed to better define this relationship.

CONCLUSIONS

1. Fruit juice offers no nutritional benefit for infants younger than 6 months.
2. Fruit juice offers no nutritional benefits over whole fruit for infants older than 6 months and children.
3. One hundred percent fruit juice or reconstituted juice can be a healthy part of the diet when consumed as part of a well-balanced diet. Fruit drinks, however, are not nutritionally equivalent to fruit juice.
4. Juice is not appropriate in the treatment of dehydration or management of diarrhea.

5. Excessive juice consumption may be associated with malnutrition (overnutrition and undernutrition).
6. Excessive juice consumption may be associated with diarrhea, flatulence, abdominal distention, and tooth decay.
7. Unpasteurized juice may contain pathogens that can cause serious illnesses.
8. A variety of fruit juices, provided in appropriate amounts for a child's age, are not likely to cause any significant clinical symptoms.
9. Calcium-fortified juices provide a bioavailable source of calcium but lack other nutrients present in breast milk, formula, or cow's milk.

RECOMMENDATIONS

1. Juice should not be introduced into the diet of infants before 6 months of age.
2. Infants should not be given juice from bottles or easily transportable covered cups that allow them to consume juice easily throughout the day. Infants should not be given juice at bedtime.
3. Intake of fruit juice should be limited to 4 to 6 oz/d for children 1 to 6 years old. For children 7 to 18 years old, juice intake should be limited to 8 to 12 oz or 2 servings per day.
4. Children should be encouraged to eat whole fruits to meet their recommended daily fruit intake.
5. Infants, children, and adolescents should not consume unpasteurized juice.
6. In the evaluation of children with malnutrition (overnutrition and undernutrition), the health care provider should determine the amount of juice being consumed.
7. In the evaluation of children with chronic diarrhea, excessive flatulence, abdominal pain, and bloating, the health care provider should determine the amount of juice being consumed.
8. In the evaluation of dental caries, the amount and means of juice consumption should be determined.
9. Pediatricians should routinely discuss the use of fruit juice and fruit drinks and should educate parents about differences between the two.

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NOV - 6 2006

November 3, 2006

Patricia N. Daniels
Director, Supplemental Food Programs Division
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and

Via e-mail to:
WICHQ-SFPD@fns.usda.gov
Docket ID Number 0584-AD77, WIC Food Packages Rule

Re: Docket ID Number 0584-AD77-WIC Food Packages Rule

Dear Ms. Daniels:

Gilster – Mary Lee Corporation is one of the largest suppliers of grain-based cereal products for private label customers in the United States. These cereal products provide a nutritionally comparable alternative to national cereal brands at a lower, more attractive price to consumers throughout the United States. Many of these cereal products are available to consumers under the current WIC program. Cereal ingredients and finished products of various grain content are included in the current food packages available for women and children in the form of a breakfast cereal. However, current regulations do not specify minimum grain content for the cereal.

The proposed rule would require that breakfast cereal for children and women must meet Food and Drug Administration (FDA) standards as a 51% whole grain food in order to be eligible for WIC classification. The proposed requirement that grain-based cereal products be required to contain 51% whole grain and the criteria for a whole grain foods health claim would eliminate from the available WIC regime a good-tasting, plentiful and cost effective nutritious diet component.

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The role of whole grains and fiber. The definition of authorized cereals [pg. 44801: K. 1. and 2.] excludes from the WIC diet wholesome, whole grain food products with less than 51% whole grains. There is no basis in the underlying science that whole grain foods containing 50% whole grains cannot or should not be part of a healthy diet; reported studies indicate that the benefits of whole grain consumption as part of a total diet is independent of the whole grain contribution of one food source. The focus on total dietary value as contrasted to the value of a single food in the diet is more in keeping with the FDA's historical total dietary focus.

While the popular notion of the benefit of whole grains may only be its fiber content, whole grains provide a number of documented health benefits: reduced risk of some chronic diseases, weight management, B vitamins, iron, magnesium and selenium. Similarly, the authorized whole grain health claim: "*Diets rich in whole grain foods and other plant foods and low in total fat, saturated fat, and cholesterol, may help reduce the risk of heart disease and certain cancers*" focuses on dietary fiber (fiber used as a marker) and CHD benefits (largely). The health statement, while emphasizing an important benefit of whole grain content, slights the role of whole grains for general nutritional purposes and the benefits of consumption of whole grains below the arbitrary 51%. In its workup to acceptance of the whole grains claim based upon an authoritative statement, FDA has observed that consideration of the scientific evidence suggests that the benefits of whole grains are based on more than their fiber content. The Guidance, however, does not appear to address these issues, reflecting the unsettled nature of this issue (notwithstanding the issuance of the Guidance.)

Certainly neither the *Food Pyramid* nor the *Dietary Guidelines* nor the health claim regulation based upon an authoritative statement was intended to preclude the promotion of benefits associated with whole grain consumption other than fiber content and less than 51%. Availability of such products follows closely upon the awareness via promotion of these benefits. There are many, many healthful, vital food products which are essential to a healthy, well-balanced diet which do not qualify for a labeled "health" claim. Surely it was not the intention of the FDA to exclude these nutritious food products from the diet. ". . . *the health benefits of whole grains are based on more than their fiber content*" (Shellee Anderson, Food Labeling and Standards Staff, Food and Drug Administration, January 24, 2006).

The role in the diet of between one and three servings of whole grain has been shown to reduce the risk of certain diseases. Some studies have shown a beneficial effect at a level of one serving per day. A bibliography follows but we respectfully bring to your attention and quote from the study by Jensen and Koh-Banerjee, "*Intakes of whole grains, bran, and germ and the risk of coronary heart disease in men*" in The American Journal of Clinical Nutrition, vol. 80, no. 6, December 2004.

Because our analyses of whole grains from all sources and only from foods that contain $\geq 51\%$ whole-grain ingredients were similar, our results suggest that the effects of whole grains are independent of the whole-grain concentration of the food source. Thus, the beneficial effects of high intakes of whole grain can be achieved regardless of the food source. The recent FDA-approved health claim for whole-grain foods that contain $\geq 51\%$ whole-grain ingredients by weight . . . may be too restrictive and exclude a substantial number of helpful foods that contain whole grain but do not meet an arbitrary threshold. (emphasis added)

See also:

Liu S, Sesso HD, Willett WC et al, Is intake of breakfast cereals related to total and cause-specific mortality in men? Am J Clin Nutr 2003; 7:594-599.

Liu S, Stampfer M J, Hu FB, Giovannucci E, Rimm E, Manson JE, Hennekens CH, Willett WC. Whole-grain consumption and risk of coronary heart disease: results from the Nurses' Health Study. Am J Clin Nutr. 1999 Sep; 70(3):412-9.

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Jensen MK, Koh-Banerjee P, Hu FB, Franz M, Sampson L, Gronbaek M, Rimm EB. Intakes of whole grains, bran, and germ and the risk of coronary heart disease in men. Am J Clin Nutr. 2004 Dec; 80(6):1492-9.

Koh-Banerjee P, Franz M, Sampson L, Liu S, Jacobs DR Jr, Spiegelman D, Willett W, Rimm E. Changes in whole-grain, bran, and cereal fiber consumption in relation to 8-y weight gain among men. Am J Clin Nutr. 2004 Nov; 80(5):1237-45.

This comment does not take issue with the recommendations of the *Dietary Guidelines* nor the *Food Pyramid* as total dietary recommendations, however, we do suggest that none of these recommendations should function as a zero sum, all or nothing recommendation – there are many good foods which taken as part of a total diet contribute significantly to health and development.

Impediments to simple reformulation to 51%. The 2005 *Dietary Guidelines* and the *Food Pyramid* encourage consumers to increase their consumption of whole grains. Based upon a 2000 calorie diet, the recommendations translate to at least 3 one ounce servings or equivalent per day (48 grams) or one ounce/16 grams per eating occasion. The recommendations do not require, however, that exactly one-third of the total daily recommendation be consumed at each eating occasion. Producers should be encouraged and have been encouraged to develop or reformulate products to push toward these recommended levels of whole grains. However, when there are technological, processing or developmental barriers to complete conversion to whole grains, producers should not be discouraged from or penalized for making as much of a whole grain contribution as possible. Removal of whole grain cereal products which do not contain 51% whole grains from WIC availability penalizes and discourages production and consumption of what it in all other respects are a beneficial part of a healthy diet. Under the WIC proposals, these items become simply unavailable.

Whole grain content can impact the flow and sheeting of dough through the manufacturing process and can create off-notes, bitterness, or loss of flavor in some products. Among children the appearance and texture of a whole grain product can be less appealing than its smoother less grainy looking counterpart. Wheat, the most popular grain, is also included among the eight (8) major allergens – an issue of sufficient importance that Congressional legislation specifically calls for the labeling of wheat ingredients. The WIC proposal if adopted will effectively deny breakfast grain cereals to wheat protein sensitive or gluten intolerant individuals. Rice cereals, which would not qualify for inclusion under the proposal, are among the most palatable and easily digested by young persons particularly. Adoption of the current proposal would make rice cereals unavailable under the WIC program. The whole grain corn flake product currently on the market is strikingly dissimilar to “traditional” corn flakes in taste,

mouth feel and appearance but for whatever reason, does not appear to be currently enjoying overwhelming consumer acceptance. Cereals are a popular item in the American diet and their utility for enhancing the goal of increased whole grain consumption should not be lessened by the raising of an "arbitrary" measure of whole grain content.

A review of the available history of the 51% threshold does not indicate a grounding in science as much as a concern for economic deception and a consistent labeling for similar products among competing products. From the "*Basic Four*" to the *2005 Dietary Guidelines* no mention is made of 51% whole grain; rather, the emphasis is, as it should be, on total daily consumption.

51% is an economic deception not a nutrition issue. *Guidance for Industry and FDA Staff: Whole Grain Label Statements* does not include any reference to 51%. The Kraft notification for its proposed health claim based upon an authoritative statement references the *NAS Report, Diet and Health: Implications for Reducing Chronic Disease Risk*. While the Kraft notification defines "whole grain foods" as those which contain 51% or more whole grain ingredients, there is no reference in the cited authoritative statement for a 51% qualifying level. By referencing a fiber content/marker as the basis of the claim, FDA ignores the significant beneficial attributes of food products containing less fiber and less whole grain. Having just turned down General Mills' petition to define "excellent" and "good" source of whole grains, under the guise of WIC standards, the United States Department of Agriculture, Food and Nutrition Service has turned around and adopted the "good food/no-good food" rationale on the basis of one percentage point: *51% is good but 50% is no good – hardly a desirable or scientifically supportable conclusion.*

It is not clear from the regulatory history how the 51% marker was determined. However it does appear that the impetus was labeling rather than any "health benefit" concerns. If less than a majority of the grains are whole grains, it appears the producers and the FDA felt that "whole grain _____" overstated the presence of whole grains to the consumer. There has been little or no discussion that 51% is the optimal level of grains as products containing 49% or 40% or 25% possess none of the healthful benefits of whole grain. Perhaps this results because the 51% cut-off is not supported by the science.

Because our analyses of whole grains from all sources and only from foods that contain > 51% whole-grain ingredients were similar, our results suggest that the effects of whole grains are independent of the whole-grain concentration of the food source. . . .The recent FDA-approved health claim for whole-grain foods that contain >51% whole-grain ingredients by weight . . . may be too restrictive and exclude a substantial number of helpful foods that contain whole grain but do not meet an arbitrary threshold. *supra.*

Impact on cost and availability. Adoption of the WIC proposal with regard to whole grain cereals is likely to affect the cost and availability of food products with whole grain ingredients. Breakfast cereals and private label cereals are extremely price sensitive businesses. Small changes in ingredient and manufacturing costs can have a major impact on the category. The private label segment has only recently weathered two expensive formulation and packaging changeovers (allergens and *trans* fat) and the costs associated with another changeover do not bode well for consumers.

Your commentator produces cereal products for private label customers. If the proposal is made final, there will be a not insubstantial cost involved to producers in reformulation of existing products and development of new packaging. These increased costs are both one-time and on-going. There will be product development costs, assuming a reformulated product is feasible, and product testing. There may be increased raw materials costs as demand for whole grain flours increases; and, the resulting product containing more whole grains will be a more expensive product. In addition, as private label producers by definition produce for a number of customers, we anticipate that some of our customers may choose to leave the WIC business rather than to incur the costs of a change-over and possible loss of sales if the reformulated cereal becomes less desirable to consumers. If some of our customers choose to reformulate for WIC and others choose to drop out of the program, we will be faced with trying to supply two products with different formulations, perhaps different in-plant handling, new and separate grain storage and different packaging. Private label producers may feel compelled to make a determination whether or not it remains profitable to produce two different cereals, one for WIC and one for non-WIC sales.

It is the private label or store brand product which provides the best value to consumers, and resulting lower reimbursement dollars to the states. Pushing private label products out of the market or raising the price of private label can only hurt the very goal the WIC program is designed to further.

Does the consumer really want to eat a whole grain corn flake? If increased whole grain content equates with less taste appeal, the WIC proposal may have the result directly opposite from that intended. If WIC program cereals are not tasty and desirable, recipients may be pushed toward more sugary, high in fat, less whole grain cereals in an effort to find a breakfast cereal that their children will eat.

Conclusion. While the 51% proposal is an effective short-hand method for classifying the whole grain content of a food, its blanket application causes many valuable, wholesome foods to be eliminated for consideration by the WIC program. While wheat is the predominant grain source, wheat and oat-based grain cereals would appear to be the only grains that would consistently and palatably meet the proposed WIC criteria. Yet, corn and rice-based grain cereals are also popular grains used in cereals. In addition, rice, for example, is highly digestible and contributes more than 15 essential nutrients to the diet. A study reported to the Texas Dietetic Association in April 12, 2005, by Betres-Marquez, Jensen and Upton found that people who eat rice have healthier diets, eat more vegetables, and consume less sugar and fat. Certainly it is not an intended result of the proposal to compel a wheat with some oats grain diet regime on recipients to the exclusion of other equally nutritious, palatable and cost-effective alternatives.

We urge the USDA to reject the 51% proposal for cereals and return to the current standard; or, in the alternative, to adopt a proposal which continues the availability of a broad range of healthy grain-based cereals.

Respectfully submitted,

GILSTER-MARY LEE CORP.



Thomas B. Welge