



American Peanut Council

U.S. Wellness Products
March 2009





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- Today We'll Learn More About:
 1. Peanuts / Groundnuts, Peanut Butter
 2. Challenges / Pressures on Global Food Security
 3. Peanut Butter & Peanut Butter-Based Ready to Use Therapeutic / Supplemental Foods (RUT/SF's)
 - Response to Challenges - Critical to Food Aid Equation
 4. Peanut Butter - USAID Approved Building Block for International Food Aid



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- Tomorrow's Breakout Session We'll Learn More About:
 - Uses of US-Sourced Peanut Butter Products:
 - Healthy Food for School Children and the Family Food Basket
 - Malnutrition Rehabilitation & Supplementation
 - Complementary Food for Children 6-18 Aged Months
 - How Peanut Butter and Peanut-based RUTF's meet the need



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- Peanuts / Groundnuts / Peanut Butter:
 - Peanuts - Enjoyed around the world!
 - Peanut Butter – Used extensively in the home / schools
 - Large quantities used in - sandwiches, snacks, bakery products
 - Peanuts and Peanut Butter
 - Common ingredients in numerous cuisines around the world
 - Importantly - Gaining recognition as key ingredient in Global Food Aid / Food Security



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- Peanuts / Groundnuts, Peanut Butter - Overall:
 - Energy-dense
 - Protein-rich
 - Complex carbohydrates – Slow burning fuel to the body
 - Vitamin and mineral rich
 - Positive heart health (Contains Resveratrol, no cholesterol, good fats)
 - Lactose free
 - With U.S. products – Aflatoxin Not An Issue



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- Peanut Butter – Specific Features:
 - Ready-to-eat
 - Used alone or with other foods such as flat breads, grains, other foods
 - Stored without refrigeration for up to a year
 - High caloric dense food (~ 50% fat)
 - Appropriate food for:
 - Children & adults in need of both dietary fat & calories
 - Fat in peanut butter:
 - Predominately heart healthy monounsaturated fat



Addressing Today's Challenging / Targeted Food Aid / Food Security Needs

- **Challenges / Pressures on Global Food Security:**
 - Global food security is addressing more identified issues
 - Stretching available funds - Potential of less available funds
 - Food security needs are to:
 1. Become more efficient & cost effective in operations
 2. Make food aid more directed, efficient and applicable in addressing vulnerable group needs
 - Global recognition for:
 - More complete / therapeutic foods to...
 - Effectively address the most distressed vulnerable groups:
 - Malnourished, severely malnourished, HIV/AIDS, special conditions / deficiencies.



Response to Challenges/Pressures

- Peanut Butter and ...
- Peanut Butter-Based Ready to Use Therapeutic / Supplemental Foods (RUT/SF's):
 - Strongly respond to pressures being exerted on food aid community
 - Have direct roles in effective response for:
 - Supplementation
 - Rehabilitation



Response to Challenges/Pressures

- Peanut Butter Supplemental Response:
 - School Age Children Benefits:
 - Energy/Nutrient Dense, Assist Cognitive Learning, Address Nutrient Deficiency
 - Family Food Basket Benefits:
 - Energy / Nutrient Dense, Address Nutrient Deficiency, Ready To Eat, No Preparation



Response to Challenges/Pressures

- RUTF's Provide Strong Targeted, Vulnerable Group Response:
 - Children
 - Rehabilitation - Stunted / Wasted, Edematous, HIV/AIDS Infected
 - Supplementation - Stunted, Nutrient Deficient
 - Women / Men - Supplementation
 - Pregnant / Lactating Women, HIV Infected, Malnourished, Elderly, Emergency Ration, Nutrient Deficient



Response to Challenges/Pressures

- For NGO/PVO's ... Peanut Butter or Peanut Butter Based RUTF's Provide:
 - Convenient In-field Application
 - Ready to eat, no preparation
 - Do not require cooking; no fuel need
 - Does not require mixing with water; eliminates risk of contamination
 - Stable, with a long shelf life
 - Portable; antimicrobial; eco-friendly
 - Can easily be made and distributed in-country.



Response to Challenges/Pressures

- For NGO/PVO's ... Peanut Butter or Peanut Butter Based RUTF's Provide Five Key Benefits:

1. Proven Vulnerable Group Effectiveness ^(a)

- >80% recovery of severely malnourished children
- Better outcomes for childhood malnutrition than standard therapy
- Lower prevalence of fever, cough & diarrhea than those of standard therapy
- Less deaths & relapse than with standard therapy.

(a) See Dr. Manary, et. al. peanut butter based RUTF clinicals/in-field studies spanning 10 years.



Response to Challenges/Pressures

- For NGO/PVO's ... Peanut Butter or Peanut Butter Based RUTF's Provide Five Key Benefits:

2. Real Nutrient Delivery

- High quality protein
- Energy-dense, nutrient-dense, provides satiety
- Vitamin & mineral rich
- Good to excellent vitamin source:
 - Niacin, vitamin B-6, thiamin, riboflavin, vitamin E (b)
- Good to excellent mineral source:
 - Magnesium, zinc, selenium, potassium, iron. (b)

(b) Peanut butter alone can provide these WHO levels.



Response to Challenges/Pressures

- For NGO/PVO's ... Peanut Butter or Peanut Butter Based RUTF's Provide Five Key Benefits:

3. Acceptance

- Likely to be consumed by all religions & cultures

4. Safety

- US products are safe with no aflatoxin issues
- No allergenicity issues after 10 years work with African children. (c)

5. Cost Effectiveness

- Cost effective in energy / nutrient density
- Esp. when factoring-in higher recovery rates, lower relapse & death rates, & lower incidence of issues (e.g. cough, diarrhea, fever) than standard therapies.

(c) See Dr. Manary, et. al. *peanut butter based RUTF clinicals/in-field studies spanning 10 years.*
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Response to Challenges/Pressures

- **US-Sourced Peanut Butter - USAID Approved !**
 - US Agency for International Development, Office of Food for Peace, for Title II humanitarian assistance programs.



Thank You

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U.S. Wellness Products
Day Two:
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The Use of Peanut Products

- Uses of US-Sourced Peanut Butter Products:
 - Specific market and target groups
 - Their nutritional needs
 - How Peanut Butter meets the need
 - How Peanut-based RUTF meets the need



The Use of Peanut Products

Peanut Butter: Healthy Food for School Children

Needs:	How Peanut Butter Meets the Need:
Energy/Calories Growth, metabolism & physical activity & to spare protein	
Protein Adequate amounts & good quality	
Carbohydrates Needed for brain function, to maintain blood glucose (sugar) & immediate energy	
Fats To provide energy & healthy fats for growth, metabolism & physical activity.	



The Use of Peanut Products

Peanut Butter: Healthy Food for School Children

Needs:	How Peanut Butter Meets the Need:
Energy/Calories Growth, metabolism & physical activity & to spare protein	• <u>More calories per gram</u> than rice, corn, wheat, corn/soy blend and F-100.
Protein Adequate amounts & good quality	• <u>~22% protein</u> - higher protein than wheat, rice and corn. • <u>Protein quality in peanuts is good</u> , higher than wheat, corn, rice
Carbohydrates Needed for brain function, to maintain blood glucose (sugar) & immediate energy	• <u>~ 25% carbohydrate & mostly complex</u> , slow burning & include fiber.
Fats To provide energy & healthy fats for growth, metabolism & physical activity.	• <u>~ 50% fat</u> , accounting for its high energy-density. • <u>Monounsaturated fat @ 42% & polyunsaturated fat @ ~22.8%</u> of total fat in peanut butter. These fats are heart-healthy fats.



The Use of Peanut Products

Peanut Butter: Healthy Food for School Children

Needs:	How Peanut Butter Meets the Need:
Electrolytes- Potassium & Sodium	
Vitamins:	
Minerals:	
Phytochemical-Resveratrol:	
Eco-Friendly:	



The Use of Peanut Products

Peanut Butter: Healthy Food for School Children

Needs:	How Peanut Butter Meets the Need:
Electrolytes- Potassium & Sodium	• <u>Electrolytes balanced</u> - 592 mg potassium, 476 mg sodium
Vitamins:	• <u>Good to Excellent sources</u> for Niacin, Vitamin B-6, Thiamin, Riboflavin, Folate, Choline, and Vitamin E for 4-8 year old children.
Minerals:	• <u>Good to Excellent sources</u> for Iron, Magnesium, Zinc, Selenium, Copper and Manganese for 4-8 year old children.
Phytochemical-Resveratrol:	• <u>Contains Resveratrol</u> , a natural anti-oxidant. • Anti-oxidants play a role in heart-health and immune function.
Eco-Friendly:	• <u>No refrigeration required, no preparation</u> , (additional. water / fuel). • Paired with wheat bread/crackers - <u>a complete protein finger food</u> appealing to children - no utensils, plates or special clean-up afterwards.



The Use of Peanut Products

Peanut Butter: Healthy Food - Family Food Basket

Needs:	How Peanut Butter Meets the Need:
Energy/Calories:	
Protein:	
Fats:	



The Use of Peanut Products

Peanut Butter: Healthy Food - Family Food Basket

Needs:	How Peanut Butter Meets the Need:
Energy/Calories:	<ul style="list-style-type: none">• <u>Energy dense</u> - higher in calories per gram than corn, rice, soy flour, wheat flour, bulgur, corn/soy blend, and F100.• Needed to augment the lower energy-dense grains & vegetables in the family diet.
Protein:	<ul style="list-style-type: none">• ~ <u>22% protein of good quality</u>.
Fats:	<ul style="list-style-type: none">• ~<u>50% fat</u>• Diets in developing countries are typically low in fat, making it difficult to meet daily energy needs.• ~<u>65% Monounsaturated and polyunsaturated fat</u> ... these fats are considered heart-healthy.



The Use of Peanut Products

Peanut Butter: Healthy Food - Family Food Basket

Needs:	How Peanut Butter Meets the Need:
Carbohydrates:	
Electrolytes:	
Vitamins:	
Minerals:	



The Use of Peanut Products

Peanut Butter: Healthy Food - Family Food Basket

Needs:	How Peanut Butter Meets the Need:
Carbohydrates:	• <u>~ 24% carbohydrate</u> - carbohydrate is complex, including fiber, resulting in slower-burning & greater stamina.
Electrolytes:	• <u>Balanced in electrolytes</u> - 592 mg potassium & 476 mg sodium.
Vitamins:	• <u>Good to Excellent sources</u> for Niacin, Vitamin B-6, Thiamin, Riboflavin, Folate, Choline, and Vitamin E for various family members.
Minerals:	• <u>Good to Excellent sources</u> for Iron, Magnesium, Zinc, and Selenium for various family members.



The Use of Peanut Products

Peanut Butter: Healthy Food - Family Food Basket

Needs:	How Peanut Butter Meets the Need:
Phytochemical-Resveratrol:	
Eco-Friendly:	
Versatile:	



The Use of Peanut Products

Peanut Butter: Healthy Food - Family Food Basket

Needs:	How Peanut Butter Meets the Need:
Phytochemical-Resveratrol:	<ul style="list-style-type: none">• <u>Contains Resveratrol</u>, a natural anti-oxidant.• Anti-oxidants play a role in heart-health and immune function for family members.
Eco-Friendly:	<ul style="list-style-type: none">• <u>No refrigeration required or preparation necessary</u> (i.e. additional water or fuel).
Versatile:	<ul style="list-style-type: none">• Pairing with wheat bread/crackers results in a complete protein.• Peanut butter can be incorporated into sauces<ul style="list-style-type: none">– use over rice to improve dietary protein quality– add to vegetables to increase calories and protein intake.



The Use of Peanut Products

RUTF: Malnutrition Rehabilitation & Supplementation

Population At-Risk/Use:	Needs:	How RUTF Meets Needs:
Children - Rehabilitation <ul style="list-style-type: none">-HIV infected-Stunted-Wasted-Edematous	<ul style="list-style-type: none">• Diet to provide energy / nutrients for usual growth & <i>catch-up</i> growth. Need: <ul style="list-style-type: none">-High caloric& nutrient density-High quality protein-Adequate V/M-Anti-microbial-Easy to prepare-Administered at home-Tastes good (compliance)-Sole source of food	
Children - Supplementation <ul style="list-style-type: none">-Stunted growth-Nutrient deficiencies	<ul style="list-style-type: none">• Nutrient & caloric dense to augment existing diet.• Supplements to combat anemia, stunted growth & nutrient deficiencies i.e. vitamin A, iodine, zinc.• Portable, shelf stable & usable in field by large populations.• Easy for child to obtain	



The Use of Peanut Products

RUTF: Malnutrition Rehabilitation & Supplementation

Population At-Risk/Use:	Needs:	How RUTF Meets Needs:
<p>Children - Rehabilitation</p> <ul style="list-style-type: none"> -HIV infected -Stunted -Wasted -Edematous 	<p>Diet to provide energy / nutrients for usual growth & <i>catch-up</i> growth. Need:</p> <ul style="list-style-type: none"> -High caloric& nutrient density -High quality protein -Adequate V/M -Anti-microbial -Easy to prepare -Administered at home -Tastes good (compliance) -Sole source of food 	<ul style="list-style-type: none"> • 545 kcal/100g • Contains protein, fat & carbs. • 13.6 % protein • V/M Fortified • Antimicrobial • Ready to eat • Provided at home <p>Appropriate for limited period as sole source of food until rehabilitation goal is met.</p>
<p>Children - Supplementation</p> <ul style="list-style-type: none"> -Stunted growth -Nutrient deficiencies 	<ul style="list-style-type: none"> •Nutrient & caloric dense to augment existing diet. •Supplements to combat anemia, stunted growth & nutrient deficiencies i.e. vitamin A, iodine, zinc. •Portable, shelf stable & usable in field by large populations. •Easy for child to obtain 	<ul style="list-style-type: none"> • High caloric, nutrient dense • Formulated with specific V/M • Can be packaged in sachets of desired size. • Can be administered in the field by non-health professionals to large groups of children



The Use of Peanut Products

RUTF: Malnutrition Rehabilitation & Supplementation

Population At-Risk/Use:	Needs:	How RUTF Meets Needs:
<p>Women - Supplementation</p> <ul style="list-style-type: none">-Pregnant (P)-Lactating (L)-HIV-infected-Malnourished-Elderly-Emergency rations	<ul style="list-style-type: none">-Beyond maintenance & growth, (if teen), P&L diet should provide extra ~25 g protein, ~300-500 kcal, ~10 mg iron & increased V/M.-HIV-infected P&L women have add'l nutrient needs (protein, calories & V/M) beyond nutrient needs for P&L women.-Non P&L HIV-infected women have increased protein, calorie & V/M needs.-Need high caloric & nutrient dense supplement or foods depending on health status of woman.-Ready to eat: malnourished & sick women have little energy to look for wood, carry water and cook.-Shelf stable: best if refrigeration not required after opening-Antimicrobial, Acceptable taste-Portable <p>American Peanut Council</p>	



The Use of Peanut Products

RUTF: Malnutrition Rehabilitation & Supplementation

Population At-Risk/Use:	Needs:	How RUTF Meets Needs:
<p>Males - Supplementation</p> <ul style="list-style-type: none">-HIV-infected-Malnourished-Nutrient deficiencies-Emergency rations	<p>Diet should provide nutrition for maintenance and growth, (if teen), plus extra nutrients to restore health & combat illnesses. Need:</p> <ul style="list-style-type: none">-High caloric density-High nutrient density-HIV-infected males need additional protein, calories and specific additional V/M-Supplements can augment regular diet depending on health status-Need food vehicle for delivering specific nutrients-Antimicrobial-Easy to prepare-Acceptable taste-Portable	



The Use of Peanut Products

RUTF: Malnutrition Rehabilitation & Supplementation

Population At-Risk/Use:	Needs:	How RUTF Meets Needs:
<p>Women - Supplementation</p> <ul style="list-style-type: none"> -Pregnant (P) -Lactating (L) -HIV-infected -Malnourished -Elderly -Emergency rations <p>Males - Supplementation</p> <ul style="list-style-type: none"> -HIV-infected -Malnourished -Nutrient deficiencies -Emergency rations 	<ul style="list-style-type: none"> -Beyond maintenance & growth, (if teen), P&L diet should provide extra ~25 g protein, ~300-500 kcal, ~10 mg iron & increased V/M. -HIV-infected P&L women have add'l nutrient needs (protein, calories & V/M) beyond nutrient needs for P&L women. -Non P&L HIV-infected women have increased protein, calorie & V/M needs. -Need high caloric & nutrient dense supplement or foods depending on health status of woman. -Ready to eat: malnourished & sick women have little energy to look for wood, carry water and cook. -Shelf stable: best if refrigeration not required after opening -Antimicrobial, Acceptable taste -Portable 	<ul style="list-style-type: none"> -High caloric density -High nutrient density -545 kcal/100 g - 13.6% protein -Micronutrients can be customized -Sachet serving size can be customized -Antimicrobial -Ready to eat -Requires no preparation, water or fuel -No refrigeration required -Tastes good -Easy to carry sachet



The Use of Peanut Products

RUTF: Complementary Food - Children 6-18 Months

Population At-Risk/Use:	Needs:	How RUTF Meets Needs:
<p>Children 6-18 months of age: at risk for malnutrition or at average wt for ht.</p> <p>Children need complementary foods (CF) at about 5-6 months of age, paired with continued breast feeding.</p> <p>Growth faltering may occur in many disadvantaged populations when CF does not contain adequate micronutrients and energy density.</p>	<p>The CF must not affect the amount of breast milk consumed</p> <p>Need:</p> <ul style="list-style-type: none">- Caloric density- Nutrient density- Quality protein- Adequate V/M- Anti-microbial- Easy to prepare- Home administered- Compliance	



The Use of Peanut Products

RUTF: Complementary Food - Children 6-18 Months

Population At-Risk/Use:	Needs:	How RUTF Meets Needs:
<p data-bbox="98 415 658 525">Children 6-18 months of age: at risk for malnutrition or at average wt for ht.</p> <p data-bbox="98 596 639 753">Children need complementary foods (CF) at about 5-6 months of age, paired with continued breast feeding.</p> <p data-bbox="98 818 658 975">Growth faltering may occur in many disadvantaged populations when CF does not contain adequate micronutrients and energy density.</p>	<p data-bbox="703 415 1263 486">The CF must not affect the amount of breast milk consumed</p> <p data-bbox="703 554 799 586">Need:</p> <ul data-bbox="730 604 1078 982" style="list-style-type: none">- Caloric density- Nutrient density- Quality protein- Adequate V/M- Anti-microbial- Easy to prepare- Home administered- Compliance	<ul data-bbox="1309 415 1818 782" style="list-style-type: none">-High energy density-Can vary portion-Fortified with V/M-Antimicrobial-Ready to eat (no water or fuel needed to prepare)-Provided at home-Well tolerated



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- Peanut Butter:
 - USAID Approved Building Block for International Food Aid
 - Peanut-Based RUTF:
 - Provides the Energy, Protein, Carbohydrates, Micronutrients with the taste and familiarity to truly address the malnourished
 - “Has current demonstrated effectiveness in RUTF with >80% of severely malnourished children recovering.”
 - Clinical trials prove efficacy – minimum of 12 published clinical trials
 - Readily Available as key ingredient in:
 - Commercial products and
 - Effective response to needy food aid beneficiaries.



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Further Peanut Butter Information:



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Thank You American Peanut Council

