



FOOD PRODUCT GUIDE



MannaPack™ Rice | MannaPack™ Potato-D | MannaPack™ Potato-W
Specifications & Usage Recommendations

Pioneering Nutrition in Food Assistance

Feed My Starving Children® (FMSC) was founded in 1987 for the express purpose of providing targeted, nutritious food assistance for the developing world.

A team of eight food scientists from Cargill, Inc., Pillsbury and General Mills—anchored by Richard Fulmer, Ph.D.—developed our original fortified rice formula in the early 1990s to be culturally universal, simple to prepare, stable in various conditions and—above all—help children at risk for malnourishment. Rich in protein and micronutrients, the MannaPack™ Rice formula has met success in 70 countries and is still in wide demand today by schools, orphanages, clinics and feeding programs in food-insecure regions.

In 2006, FMSC set out to develop a formula especially for HIV-positive populations, only to learn that its rice formula adequately meets those needs. However, HIV nutritionist Cade Fields-Gardner counseled FMSC to develop a formula that filled an urgent and unmet need: a “first food” for victims of diarrhea, a leading killer of children worldwide.



Over the next two years, FMSC worked closely with Fields-Gardner, who consulted with the World Health Organization (WHO) and National Institutes of Health. MannaPack™ Potato-D launched in 2008 and a controlled clinical study in 2009 verified it stabilizes diarrhea symptoms and is a valuable complement to oral rehydration therapy. FMSC now offers this groundbreaking formula to humanitarian organizations worldwide.

The smooth texture of Potato-D was welcomed by an unexpected audience: orphanages that care for infants; but its nutrients did not fully meet that population’s needs. Seeing another opportunity to serve, FMSC commissioned Fields-Gardner to develop a new formula, making it a complement to breastfeeding for use during weaning. Launched in 2010, MannaPack™ Potato-W is among very few formulas that meet guidelines of the WHO for infants in the very vulnerable post-exclusive breastfeeding period of 7-12 months of age.

Feed My Starving Children continues to pioneer nutritious food assistance and we are privileged to offer these unique formulas. We welcome you to learn more about them in this guide.

Matt Muraski

Vice President of International Programs



“It has been extremely gratifying to work with Feed My Starving Children because they have been very progressive—ahead of the wave—in developing products for specific populations, needs and objectives. Their formulas to manage diarrhea and to use after the exclusive breastfeeding period answer needs that were unmet until now. FMSC has developed exactly what was needed and recommended: food products to achieve very specific nutritional and health results.”

**– Cade Fields-Gardner,
MS, RDN, LDN, CD**

Our Nutritionist



The benefit statements in this guide come from Cade Fields-Gardner, MS, RDN, LDN, CD, a world-renowned registered dietitian and authority in international public health. Fields-Gardner consults on nutrition-related issues through research, education, training and patient care. She is a leading author, speaker and consultant on clinical trials and public policy issues related to HIV/AIDS.

Feed My Starving Children collaborated with Fields-Gardner to develop two formulas: MannaPack™ Potato-D, the world’s first and only therapeutic food for stabilizing symptoms of diarrhea, a leading killer of young children and the severely ill; and MannaPack™ Potato-W, a follow-up food to breastfeeding that meets World Health Organization guidelines for infants 7-12 months of age. Fields-Gardner also reviewed FMSC’s original MannaPack™ Rice formula.

“Even in very poor countries and using very conservative assumptions, each dollar spent reducing chronic under-nutrition has at least a \$30 pay-off.”

– Copenhagen Consensus 2012

MannaPack™ Rice

Key Features

Fortified Rice and Soy Protein Meal Package. • A rice-based food rich in protein and carbohydrates. • Vegetarian (contains no meat, egg or dairy). • Appropriate for children and adults age 1 year and older. • Excellent source of protein, carbohydrates and key micronutrients. • Shown to be culturally acceptable worldwide.

Components

White Rice

Textured Soy Protein

Dehydrated Vegetables

Vegetarian Flavoring with a Vitamin and Mineral Blend

Preparation Instructions

1. Add contents of package to 1.5L (6 cups) of boiling water. Stir.
2. Cover and cook over low heat for 20 minutes.
3. Spices, vegetables and oil may be added during preparation to enhance nutrition and tailor to local tastes.

How Should it be Used?

MannaPack Rice should be eaten alongside locally available foods such as fruits and vegetables. 2-5 servings are required per day to meet the recommendations for carbohydrates, protein and calories per day for 4-6 year olds.† Adding oil during the cooking process boosts fat and calorie content. To ensure optimal effectiveness, this product is designed for all ingredients to be cooked and served together.

† Recommendations from the World Health Organization for nutrient intake (RNI).



Nutrition Facts

Serving Size 1 cup prepared (63g)
Servings Per Bag 6

Amount Per Serving

Calories 220 Calories from Fat 5

% Daily Value*

Total Fat 1g **1%**

Saturated Fat 0g **0%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 869mg **36%**

Total Carbohydrate 42g **14%**

Dietary Fiber 4g **16%**

Sugars 2g

Protein 12g

Vitamin A 35% • Vitamin C 65%

Calcium 20% • Iron 50%

Vitamin D 30% • Vitamin E 20%

Thiamin 55% • Riboflavin 50%

Niacin 50% • Vitamin B6 65%

Folate 90% • Vitamin B12 45%

Biotin 25% • Pantothenic Acid 55%

Phosphorus 30% • Iodine 45%

Magnesium 35% • Zinc 30%

Copper 25% • Manganese 70%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Benefits of MannaPack™ Rice

MannaPack Rice provides a real “power-punch” in local diets in developing countries. It can be used across populations for the purpose of sustaining nutrition. It contains textured soy, a high-quality source of protein—one of the key factors for growth and physical development, including brain development. MannaPack Rice is also a source of micronutrients. It contains a premix of important vitamins and minerals that can be deficient in diets where there is food insecurity or a lack of resources. Rice is very commonly known and used in a number of areas of the world. Familiarity with the ingredients used in MannaPack Rice is an important feature of this product.



“In all the years of working and living in Haiti, we have never seen any food product like MannaPack Rice. One thing that is particularly great is how it can be cooked in just 20 minutes, versus the standard Haitian rice that takes a long time. This saves on fuel.

The food is nutritious and everybody loves it! We have seen the hair color of the children change in just a short time from the ‘straw reddish hair’ to the black hair they were born with. The food is easy to store and very tasty. Many Haitians call it ‘Little Jesus!’”

– Bobby and Sherry Burnette, Founders and Directors of Love A Child, Inc.

MannaPack™ Potato-D

Key Features

Fortified Potato and Soy Blend. • A potato-based food designed to assist in symptom management and rehabilitation from diarrhea. • Contains nutrients to complement oral rehydration and to assist in replenishing those lost with diarrhea and those typically deficient in vulnerable populations. • Can be used as a “first food” to reestablish a food-based diet. • Vegetarian (contains no meat, egg or dairy). • Appropriate for all ages, even children 6-24 months old due to its smooth texture. • Does not require cooking, only potable liquid for preparation.

Components

Dehydrated Potato Granules

Soy Flour

Sweet Potato Flavoring with a Vitamin and Mineral Blend

Preparation Instructions

1. Add contents of package to 1L (4 cups) of boiled or potable water or other potable liquid. Stir.
2. Allow to cool, as needed.
3. Add more or less water to vary consistency.

How Should it be Used?

MannaPack Potato-D is designed to be utilized on a short-term basis throughout the duration of a bout of diarrhea (which could range from a few days to a few weeks). In cases of severe diarrhea and dehydration, it should be used alongside oral rehydration solutions (ORS) and other necessary clinical treatments. Maximum Servings Per Day: 4 servings for <1 year olds, 6 servings for 1-4 year olds, 8 servings for 4+ year olds.‡ After recovery from diarrhea, other age-appropriate foods should be substituted for MannaPack Potato-D. It should be noted that this food is not a cure for diarrhea but is meant to assist in the management of diarrheal symptoms and rehabilitation.

‡ Recommendations from the World Health Organization for nutrient intake (RNI).



Nutrition Facts

Serving Size 1/6 cup (22g) (1/2 cup prepared)
Servings Per Bag 12

Amount Per Serving

Calories 80 Calories from Fat 5

% Daily Value*

Total Fat 0.5g **1%**

Saturated Fat 0g **0%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 90mg **4%**

Total Carbohydrate 16g **5%**

Dietary Fiber 2g **9%**

Sugars 1g

Protein 3g

Vitamin A 6% • Vitamin C 0%

Calcium 6% • Iron 8%

Vitamin D 20% • Vitamin E 6%

Thiamin 6% • Riboflavin 8%

Niacin 10% • Vitamin B6 15%

Folate 15% • Vitamin B12 15%

Zinc 4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

Benefits of MannaPack™ Potato-D

This is a unique “first food” to use in conjunction with oral rehydration therapy to help manage the symptoms of diarrhea. There is no other food designed to manage diarrhea in the most vulnerable populations. A major symptom of many diseases including cholera, diarrhea is a fast killer of small children. MannaPack Potato-D can be very helpful in a cholera outbreak, especially in places like refugee camps. During a cholera outbreak in Zimbabwe, MannaPack Potato-D was reported to have a strong effect on helping to manage diarrhea. Putting something into the digestive system that will help stabilize diarrhea buys time so the person can survive long enough to be treated. This can mean the difference between survival and death.



In a clinical study in South Africa, researchers from Vaal University found that children who received MannaPack™ Potato-D showed a significant improvement in their ability to control and manage diarrhea.

“I have worked in nutrition research for more than 14 years and spent 11 years with the World Food Programme. [MannaPack Potato-D] is the most inspiring product I have ever observed.”

– Abdulkadir Egal Ph.D, principal investigator in MannaPack™ Potato-D clinical trial

MannaPack™ Potato-W

Key Features

Fortified Potato and Soy Blend. • A potato-based complementary and weaning food designed for children 7-12 months old.

Components

Dehydrated Potato Granules

Soy Flour

Sweet Potato Flavoring with a Vitamin and Mineral Blend

Preparation Instructions

1. Combine contents of package with 1250mL (5 1/4 cups) boiled or potable water or other potable liquid. Stir.
2. Allow to cool as needed.
3. Add more or less water to vary consistency.

Preparation Instructions (single serving)

1. Shake the sealed bag to make sure it is well-mixed.
2. Measure 3 tablespoons of dry mix into bowl.
3. Add 80 ml (1/3 cup) boiled or potable water and stir well to blend.

How Should it be Used?

MannaPack Potato-W is a weaning food designed to meet World Health Organization (WHO) recommended nutrient requirements for children 7-12 months of age.* This product may be used as a stand-alone weaning food or complementary food alongside breastfeeding or other local foods appropriate for weaning. When used as a stand-alone weaning food, 6 servings per day are recommended. Consult WHO guidelines for the appropriate use of complementary/weaning foods such as MannaPack Potato-W.

* Recommendations from the World Health Organization for nutrient intake (RNI).



Nutrition Facts			
Serving Size 1/6 cup (28g) (1/2 cup prepared)			
Servings Per Bag 12			
Amount Per Serving			
Calories 130		Calories from Fat 50	
		% Daily Value*	
Total Fat 6g			9%
Saturated Fat 1.5g			2%
Trans Fat 2g			
Cholesterol 0mg			0%
Sodium 180mg			7%
Total Carbohydrate 17g			6%
Dietary Fiber 2g			8%
Sugars 1g			
Protein 3g			
Vitamin A 4%	•	Vitamin C 2%	
Calcium 8%	•	Iron 10%	
Vitamin D 15%	•	Vitamin E 4%	
Folate 20%	•	Vitamin B12 6%	
Biotin 0%	•	Zinc 8%	
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
Calories per gram:			
Fat 9 • Carbohydrate 4 • Protein 4			

Benefits of MannaPack™ Potato-W

MannaPack Potato-W was specifically designed to meet the nutrient needs of children 7-12 months old—not something typically available in the developing world. It has a hypoallergenic base for a weaning product, designed for after the recommended exclusive breastfeeding period, when children really need additional food products. It can also be used to complement breastfeeding. It's very important to have food that meets all the recommendations for children of this age. MannaPack Potato-W can fill in the gap for populations who may not have access to the quality or quantity of food necessary for a full and well-rounded nutritional intake so children can grow and develop.



Fundación Salvadoreña
para la Salud
y el Desarrollo Humano

“One of the nutritional habits we promote in Libras de Amor (Pounds of Love) is exclusive breastfeeding for babies under 6 months of age; this is where they receive all the nutrients they need. A new challenge arises when mothers have to incorporate solid foods. Children need food that contains the nutrients necessary for their full development, taking into consideration some difficult situations in the community like very low or no income and little food availability. During this critical age, the MannaPack Potato-W children receive makes an enormous difference in incorporating new foods and nutrients into the child's diet. Mothers learn healthy, easy, accessible recipes to make with MannaPack Potato-W, like mashed potatoes, potato soup with soy and potato nuggets. The benefits of the MannaPack Potato-W are evident in the adequate weight gain of children which is monitored each month. Mothers explore their creativity in the kitchen and can demonstrate their love and care to their children by taking the time to prepare a nutritious meal.”

– Melody Salinas, Director of Communications, FUSAL, El Salvador

Nutrition Vital to a Child's Health & Development

Protein

Needed for the body to grow and repair, transport nutrients, fight infection and regulate fluids. Stimulates and maintains gastro-intestinal health. Deficiencies result in Kwashiorkor (severe growth retardation, anemia, weakness, increased risk of infection, unhealed wounds and potential death); or Marasmus (muscle wasting, weakened heart and impaired brain development).

Carbohydrates

Provides energy for all body functions, including those of the brain and nervous system. Deficiencies result in weakness, fatigue, confusion and low blood sugar (hypoglycemia).

Vitamin A

Helps in vision, growth and repair of the body; assists in maintaining immune function. Deficiencies result in diarrhea, night blindness, rough skin, increased risk of infection, impaired bone and body growth, abnormal tooth and jaw alignment and potential blindness.

Vitamin B6

Helps in the release of energy from food; promotes healthy skin, nerves and digestive system. Deficiencies cause nervous disorders, skin rashes, muscle weakness, anemia, seizures and kidney stones.

Vitamin B12

Metabolizes protein and fat; helps in formation of antibodies to fight infection and in production of red blood cells. Deficiencies result in anemia, smooth tongue, fatigue and nerve degeneration that can lead to paralysis.

Biotin

Helps in energy metabolism, fat production and storage of a form of sugar (glycogen) stored in the liver. Deficiencies result in loss of appetite, nausea, depression, muscle pain, weakness, fatigue and skin rash.

Vitamin C

Helps in wound healing; maintains bones and teeth; strengthens blood vessels; improves immunity and iron absorption. Deficiencies result in scurvy, bleeding gums and tooth loss, anemia, arteriosclerosis, depression, increased infections, muscle degeneration, rough skin, weakened bones and poor wound healing.

Calcium

Strengthens bones and teeth; assists in muscle and nerve function; assists in blood pressure function and proper clotting. Deficiencies result in stunted growth, tooth decay and bone loss in adults.

Copper

Helps with iron absorption and is part of several enzymes. Deficiencies result in anemia and bone changes.

Vitamin D

Necessary for bone and tooth formation, as it helps the body absorb and use calcium and phosphorous. Deficiencies result in soft bones, abnormal growth, joint pain and poorly formed teeth.

Vitamin E

A fat-soluble antioxidant valuable in protecting cells against free radicals; important in disease prevention. Deficiency can lead to nerve damage in limbs, impaired immune system, eye conditions, skeletal weakness or ataxia.

Fats

Source of energy and important in storing energy; forms major component of cell walls; nourishes skin and hair; insulates the body from heat and cold; cushions main organs. Deficiencies result in weakness, rough skin, brittle hair and intolerance to heat and cold.

Folic Acid

Prevents certain types of anemia.

Iron

Helps in formation of hemoglobin (red blood cells to carry oxygen) and helps the body use energy from food. Prevents iron deficiency and anemia. Deficiencies result in anemia, weakness, increased risk of infections and inability to concentrate.

Iodine

Prevents goiter and supports normal thyroid function.

Magnesium

Helps in bone formation, protein use by the body, enzyme action, muscle activity and nerve function. Deficiencies result in weakness, confusion, decreased function of the pancreas, growth failure and muscle spasms.

Niacin

Maintains nerve cells; helps in production of red blood cells and genetic material. Deficiencies result in skin rash on the body where exposed to the sun, loss of appetite, dizziness, weakness, irritability, fatigue, confusion and indigestion.

Zinc

Helps in the production of proteins and is necessary to maintain growth and development; boosts immunity and wound healing; helps transport Vitamin A; necessary for normal fetal development. Deficiency is associated with weight loss, diarrhea and impaired growth, wound healing and immunity.

Food In Action

International Care Ministries, an FMSC Distribution Partner in the Philippines, reaches 150,000 of the ultra-poor with MannaPack™ Rice each year through its programs. Its Home-Based Feeding Program, which targets children suffering from severe and moderate acute malnutrition, recorded these changes in 917 children for the year:

Weight Increase:
2.1 kg avg

Height Increase:
2.5 cm avg

Percent with Severe and Moderate Acute Malnutrition Before:
99%

Percent with Severe and Moderate Acute Malnutrition After:
31%



*For more information on the food formulas of
Feed My Starving Children, please contact:
international@fmsc.org*



Meals packed locally by volunteers. Food shipped worldwide by FMSC.

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