

# A Perfect Protein®

Experts agree - APP may  
be the best protein  
ingredient to ever be  
offered. Period.



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*is proud to introduce:*

# APP - A Perfect Protein®

*BETTER THAN ORGANIC.....BLUE IS THE NEW GREEN!™*

*APP – A Perfect Protein® and Advance Protein Powder ® are registered trademarks of  
Advance International Inc. and by U.S. Patent No. 8,663,725*

# A Perfect PDCAAS Score

APP® is a nutritionally superior, high-grade marine protein powder that is sourced from 100% WILD OCEANIC™ & MSC™ certified species. APP® contains 90-96% protein, no additives or fillers, is virtually odorless and tasteless, and has a >3YR stable shelf life. The protein is also 99.4% rapidly digestible and has received a PDCAAS score of 1.0\* - A PERFECT SCORE!

In Vitro Digestibility	Amino Acid Score	PDCAAS
1.0	1.0	1.0

# Sustainable Manufacturing

Our SEAVIOR™ System is a pharma-style, scalable, compact, and closed loop system which produces no emissions, making it very environmentally-friendly. Our products include:



## A Perfect Protein (APP)®

Our protein powder is incredibly nutritious, virtually odorless and tasteless, and very stable.

### Applications Include:

- Main ingredient in food
- Supplement and sport nutrition
- Pharmaceutical and health care



## A Perfect Omega (APO)®

Our omega oil is a minimally processed, ultra-pure natural triglyceride.

### Applications Include:

- Pharma
- Supplements
- Baby and infant foods
- Food additives

## *BLUE H2O™*

## Blue H2O™ Water

Our enhanced water has a very low salt content and highly unique properties.

### Applications Include:

- Fishtilizer™ Soil Enhancer
- Main ingredient in sauces
- Agriculture and organic
- Beverages

# Formulating with APP®



College of Public Health  
and Human Sciences

The Oregon State University Food Innovation Center held a Culinology® Event where over 50 products were developed using APP®. The purpose of the event was to assess the culinary potential of A Perfect Protein® by evaluating sample prototypes for sensory attributes, consumer research, and market potential. **The event was a resounding success!**



Many panelists suggested that, although taste was important, the idea of protein-fortified chips, dressings, energy bars, corn tortillas, and lemon gummies were interesting from a health and wellness perspective, especially for children. The overall conclusion from the panel?

***“There is, in fact, great potential for APP® as an ingredient in a wide range of value-added food and beverage products.”***



ADVANCE  
INTERNATIONAL  
INC  
*in a collaboration with*



Oregon State  
UNIVERSITY



Food  
Innovation  
Center

**Globally Impactful  
Food Technology**

**A PERFECT PROTEIN**

- Sustainable
- Non-GMO
- Low Carbon Footprint
- No Hormones
- No Pesticides
- No Acids
- Superior Functionality

**Caring For Our Planet  
Enriching The Food Supply  
Feeding The Children**



100% WILD OCEANIC  
CERTIFIED



app  
perfect protein



Made in USA

**www.advanceprotein.com**  
U.S. Patent No. 8,663,725

# Comprehensive Animal Study and Food Safety Verification

APP® is a premium high quality and complete marine-based protein powder concentrate. It is extremely safe and nutritious for human consumption, and has gone through an extensive animal study under the title *Advance International Brain, Body & Bone research fund*, conducted independently by the College of Public Health and Human Sciences at the Oregon State University.

The study focused on the “Biological and nutritional evaluation of a marine-based protein diet on rodent growth and health.”

– *College of Public Health and Human Sciences, Oregon State University; June 30th, 2016*





Protected by multiple USA and Global Patents & Patents  
Pending For more Information, visit [aipatents.info](http://aipatents.info)

# Ocean-Based Super Protein + Collagen

## APP – A PERFECT PROTEIN®

### Product Specifications

#### PHYSICAL CHARACTERISTICS

Raw Material:	100% Pacific Whiting
Visual Appearance:	Off-white powder
Particle Size:	200 mesh (nominal)
Water Solubility:	Partially Soluble
Shelf Life/Stability:	2 yrs +
Storage:	Room Temperature
Dry Bulk Density:	38.45 lbs/ft <sup>3</sup>

**Allergen Information: Contains Fish**

#### TYPICAL ANALYSIS g/100g

Protein (AOAC 990.03-992.15)	≥ 90
Collagen (AOAC 982.30 mod.)	0.56
Fat	0.13
Cholesterol	0 mg
Ash (AOAC 942.05)	10
Moisture (AOAC 942.05)	≥ 3.0

**Pepsin\*** (AOAC 971.09) **99.40 %**  
\*(Digestibility test)

#### MINERAL PROFILE (ICP-MS) mg/100g

Calcium	<2400
Chromium	.09
Copper	.20
Iron	<15
Magnesium	200
Potassium	<2000
Selenium	.10
Sodium	<500
Zinc	.20

#### MICROBIOLOGICAL ANALYSIS, cfu/g

TPC (CMMEF Chapter 6)	< 5,000
Coliform (AOAC 991.14)	< 10
E. Coli (AOAC 991.14)	< 10
Salmonella (AOAC 2003.09)	Negative

Standard Packaging:	20 kg bag	Country of Origin:	USA
Alternative Packaging:	725 kg sacks	Issued:	FFJ 3/19/2020

#### A COMPLETE & UNIQUE PROTEIN

APP® is a premium, high quality and complete protein isolate powder produced from only premium, food-grade, wild-caught, certified sustainable and abundant ocean fish (Pacific Whiting) that are exclusively sourced from pristine Pacific Ocean waters. The fish are only sourced from fully traceable, HACCP and MSC compliant fisheries and processors. The complete amino acid profile of this unique & patented protein is enhanced by the presence of naturally occurring minerals and marine collagen, which can also help optimize a human body's collagen potential.

#### ADDITIONAL QUALITIES

Pesticide-free, no growth hormones, gluten-free, lactose free, soy-free, and no antibiotics. No additional ingredients or artificial additives. Wild Oceanic Certified. Non-GMO Project Verified. Certified Kosher and Halal.

#### TYPICAL AMINO

#### ACID PROFILE (AOAC 982.30 mod.) g/100g

Alanine	6.50
Arginine	7.01
Aspartic Acid	11.45
Cysteine	1.13
Glutamic Acid	17.98
Glycine	4.02
Histidine*	2.31
Isoleucine*	5.33
Leucine*	9.03
Lysine*	11.10
Methionine*	3.88
Phenylalanine	4.23
Proline/Hydroxyproline	3.45
Serine	4.63
Taurine	0.02
Threonine*	4.95
Tryptophan*	1.27
Tyrosine	3.86
Valine*	5.50

\*Essential Amino Acid

#### HEAVY METALS (ICP-MS) ppm

Lead**	< 0.5
Arsenic**	< 0.5
Cadmium**	< 0.5
Mercury**	< 0.5

\*\*Results below 0.5 ppm testing threshold.





# APP – A Perfect Protein®

To Take Your Product to The Next Level



## Characteristics

- >91% Protein
- Full & Complete Amino Acid Profile
- High Digestibility – PDCAAS of 1.0
- Clean Label
- Extended Shelf Life
- Gluten-free, Dairy-free, Lactose-free, Soy-free, Shellfish-free
- Growth hormone-free
- Trans-Fat-free
- Ketogenic, Paleo, and Pescatarian Diet Friendly
- Low Glycemic Index
- Excellent Natural Mineral Content
- Made in California, USA
- White to off-white in color
- Mild Aroma/Flavor
- Non-Hygroscopic
- No Additives or Preservatives
- Safe for Human Consumption
- Excellent Nutritional Value
- Low Carb, Fat and Cholesterol



## Sustainable & Clean Label

- One Ingredient: **100% food-grade, sustainable ocean fish protein**
- Industry Certified and Compliant Supply Chain
- Patented Ingredient Manufacturing Technology
- Low-to-Zero Manufacturing Waste
- Most Sustainable Protein on the Planet
- Non-GMO Project Verified™ Ingredient

## Processing Characteristics

- Designed for applications where a low water-hold and low viscosity protein is needed.
- Recommended ingredient for extruded food products.
- Designed for applications in slightly acidic liquid foods.
- Very Heat Stable, and will not 'gum up' or stick to machines

## Suggested Applications

- Protein Enhancement and/or replacement (whey, soy, pea, egg white)
- Ready-to-eat food supplements
- Ready-to-drink energy beverages
- Pastas/Bakery
- Cereals/Crisps/Chips
- Protein Bars
- Powdered Drink/Dry Mixes
- Dressings/Sauces
- Savory/Snacks
- and more!!

## Researched and Tested

Scientific studies have shown that wild ocean fish provide us with one of the best sources of protein for human health and nutrition. **APP® is a premium, high quality protein isolate extracted from 100% wild-caught, sustainable ocean fish.**



APP® has gone through an extensive animal study conducted independently by the College of Public Health and Human Sciences at Oregon State University. In addition to confirming the safety of our ingredient, the study also showed APP® positively impacted major areas related to brain, body, bones, muscle, and heart health.

## Premium Benefits

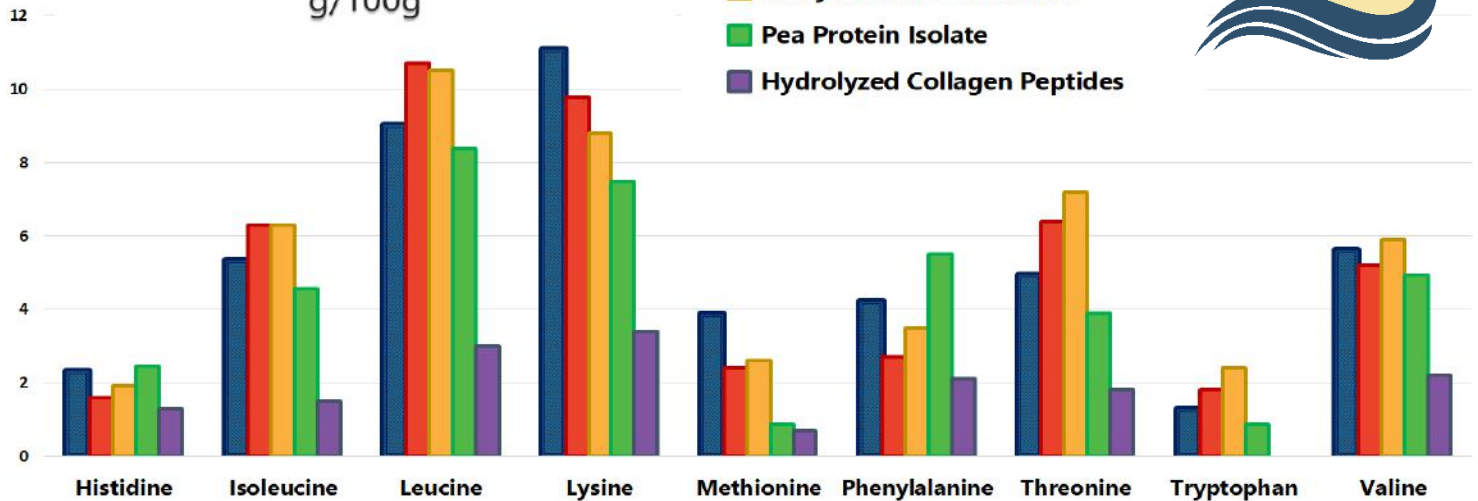
- Antioxidant Support
- Precursor of Serotonin
- Supports Synthesis of Niacin (Vitamin B3)
- Skin and Hair Health (Contains Marine Collagen)
- Cholesterol Support
- Digestive Health
- Satiety/Hunger Relief
- Weight Management
- Sports Performance and Nutrition
- Maintain Muscle Mass

Features	Benefits
Complete amino acid profile	• Provides optimal nutritional value as a standalone product or as an added ingredient, with a PDCAAS Score of 1.0
Concentrated	• Extremely high nutritional value per gram of product consumed
Low molecular weight profile	• Easily digested and absorbed
	• The only water-insoluble fish protein on the market
	• Fast release and digestibility
	• Non-viscosity forming
Non-Hygroscopic and Water Insoluble	• Forms smooth dispersions in variety of hydrophilic and hydrophobic liquids
	• Vastly improved versatility in food preparations
	• Boosts potential of introducing novel protein-enriched food products that have been conventionally limited by water soluble protein
Patents Issued and Pending for Manufacturing Process and Composition	• A unique ingredient for distributors in a field crowded with undifferentiated products
	• Offers a distinctive competitive edge for food manufacturers

## Essential Amino Acid Comparison of Unflavored Protein Powders

g/100g

- APP – A Perfect Protein
- Hilmar 9400 Whey Protein Isolate
- Whey Protein Concentrate
- Pea Protein Isolate
- Hydrolyzed Collagen Peptides

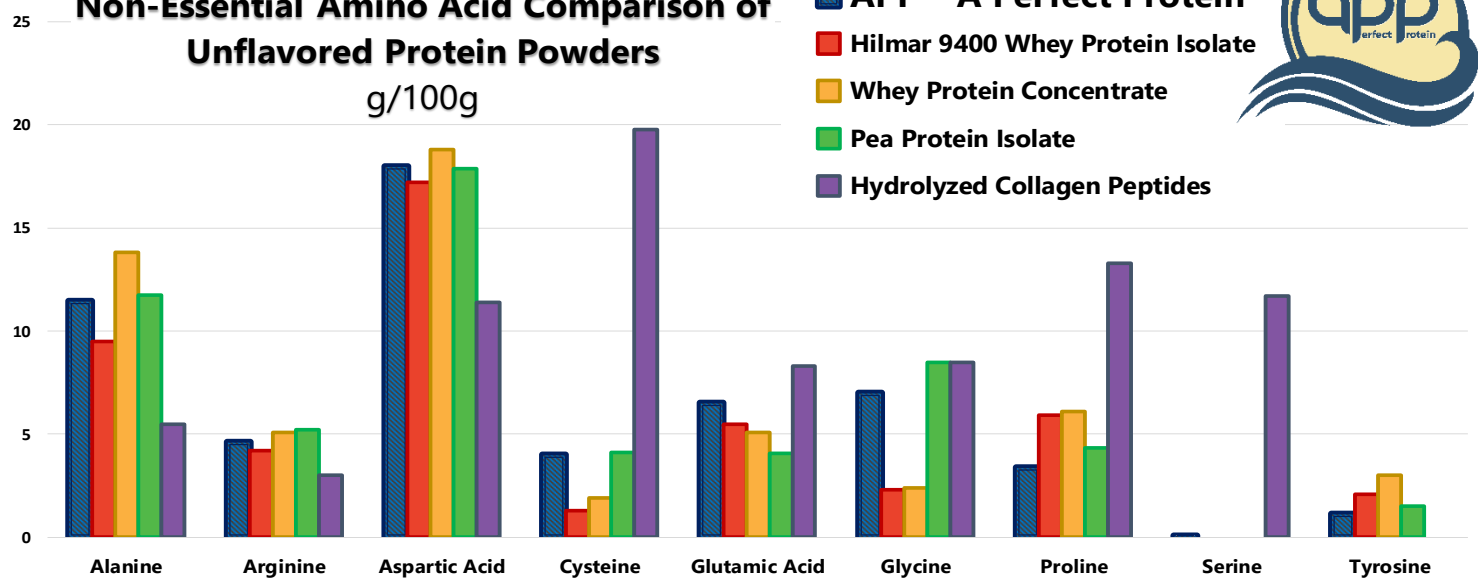


AMINO ACIDS	APP – A Perfect Protein	Hilmar 9400 Whey Protein Isolate	Whey Protein Concentrate	Pea Protein Isolate	Hydrolyzed Collagen Peptides
Histidine	2.31	1.6	1.9	2.46	1.3
Isoleucine	5.33	6.3	6.3	4.56	1.5
Leucine	9.03	10.7	10.5	8.37	3
Lysine	11.1	9.8	8.8	7.49	3.4
Methionine	3.88	2.4	2.6	0.88	0.7
Phenylalanine	4.23	2.7	3.5	5.51	2.1
Threonine	4.95	6.4	7.2	3.9	1.8
Tryptophan	1.27	1.8	2.4	0.88	0
Valine	5.61	5.2	5.9	4.93	2.2

## Non-Essential Amino Acid Comparison of Unflavored Protein Powders

g/100g

- APP – A Perfect Protein
- Hilmar 9400 Whey Protein Isolate
- Whey Protein Concentrate
- Pea Protein Isolate
- Hydrolyzed Collagen Peptides



NON-ESSENTIAL AMINO ACIDS	APP – A Perfect Protein	Hilmar 9400 Whey Protein Isolate	Whey Protein Concentrate	Pea Protein Isolate	Hydrolyzed Collagen Peptides
Alanine	11.45	9.5	13.8	11.76	5.5
Arginine	4.63	4.2	5.1	5.2	3
Aspartic Acid	17.98	17.2	18.8	17.86	11.4
Cysteine	4.02	1.3	1.9	4.11	19.8
Glutamic Acid	6.5	5.5	5.1	4.06	8.3
Glycine	7.01	2.3	2.4	8.46	8.5
Proline	3.39	5.9	6.1	4.34	13.3
Serine	0.06	<0.1	0	0	11.7
Tyrosine	1.13	2.1	3	1.49	0
Taurine	0.02	0	0	0	NA



# The Most Sustainable Protein in the World

*Protected by multiple USA and Global Patents & Patents Pending.*

## Feeding the World and Protecting our Planet

The world's healthiest and most sustainable protein sources come from the ocean. It is the largest global biomass and is accessible from virtually all corners of the world. There are over 200 fish species worldwide that are certified abundant and sustainable, and fish are the healthiest protein source on the planet.

The nutritional benefits of fish are quite unique. Fish is a high-protein, low-fat food that has been proven to provide a range of health benefits. Fish also contains a complete amino acid profile to assure optimal healthy development of the brain, bones and whole body. In fact, fish has higher nutrient and protein value than any other type of protein available - in short, fish is a complete protein source.

Although fish is generally accessible, for many people the regular intake of the beneficial protein in this superfood has been limited to consuming fish prepared for meals. Advance International Inc. is ready to provide this valuable protein in an alternative form as a powdered ingredient in the foods we eat, the beverages we drink, and the nutritional supplements we consume.

**We pride ourselves in producing truly sustainable ocean-based ingredients that enrich the global food supply chain.**

## A Premium Product

APP - A Perfect Protein® is a premium, clean label protein powder that's poised to revolutionize the ingredient landscape and is the world's most sustainable and nutritious alternative protein.

Made in California (USA) from premium, food-grade, 100% wild-caught, certified sustainable and abundant ocean fish sourced from the pristine waters of the Pacific Ocean. These fish are only sourced from fully traceable, HACCP and MSC compliant fisheries and processors.

APP® contains 92% protein, with a strong secondary profile of naturally occurring minerals and even marine collagen (all-in-one, from a single source, no additives!)

A unique, patented food and supplement ingredient with a much blander flavor & aroma profile than any other ocean-based protein powder, APP® offers manufacturers a competitive advantage and flexibility for use in many different formulations, including savory snacks, dietary supplements, beverage applications and more.

**Several university-led studies and expert reviews have concluded that APP® may be the best protein to ever be offered as an ingredient!**



## Sustainable Technology

In traditional land and plant protein manufacturing, huge amounts of arable land, fresh water, chemicals, pesticides, enzymes and acids are used to either care for or collect protein from the source.

With multiple U.S. & International Patents and Patents Pending, Advance International, Inc. is at the forefront of truly sustainable protein innovation.

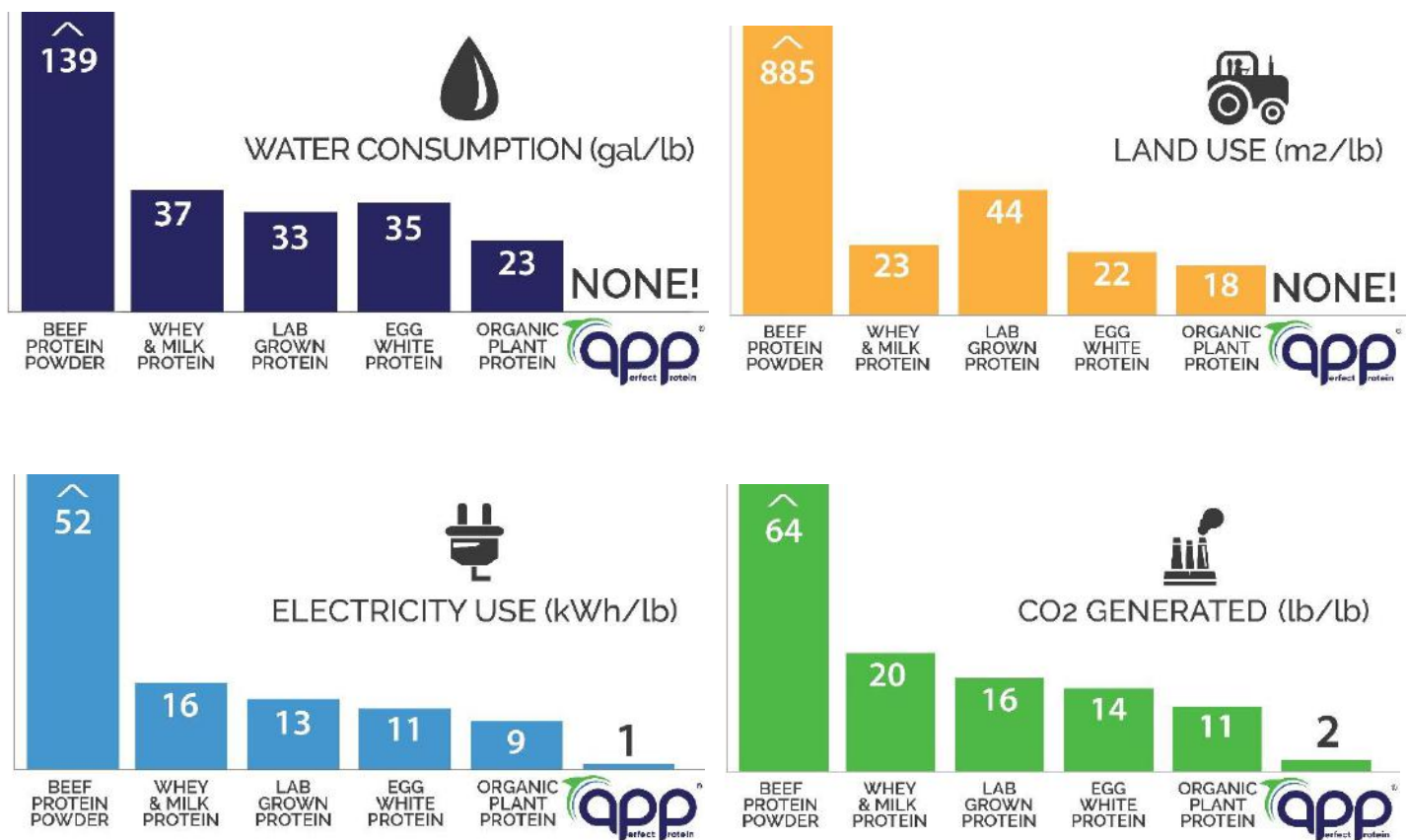
Our patented, sustainable, and eco-friendly ingredient manufacturing process, called the SEAVIOR® system, is used to gently extract high-quality ocean-based protein from premium, food-grade, sustainable and

abundant ocean fish. This patented technology doesn't require harsh chemicals or scarce resources like fresh water or arable land to produce. That means more land to grow our fruits and veggies, a lessened burden on our scarce water supply, and a more efficient food system.

**Our system produces nearly ZERO waste and generates a carbon footprint that ranges from 6X to 32X SMALLER than all other commercial protein categories!!**

## APP® SUSTAINABILITY COMPARISON: GLOBAL PROTEIN SOURCES

*(Resources Consumed in Manufacturing Protein, per pound of finished protein powder)*



**A Perfect Protein® - The world's most sustainable alternative protein, now available commercially as an ingredient.**





# PROTEIN-4-KIDS™

Feeding the world & protecting our planet

► Corporate Giveback and Social Responsibility Program ◀

Millions of children die from malnutrition every year because they can't get the protein, vitamins, and minerals their young bodies need. The right to food is a fundamental human right protecting the right of every individual to be free from food insecurity, hunger and malnutrition.



MALNUTRITION IS  
THE #1 RISK TO HEALTH  
WORLDWIDE



2 IN 7 PEOPLE IN THE  
WORLD SUFFER FROM  
MALNUTRITION



1/3 OF CHILD DEATHS  
GLOBALLY ARE CAUSED  
BY MALNUTRITION

Advance International, Inc. is deeply committed to helping improve the lives of malnourished children across the globe and has created the world's first marine-based ready-to-eat food packet. The RUSF is made with our novel and patented, wholesome and sustainable, 100% wild oceanic marine protein –**APP – A Perfect Protein®**.

Advance International created the Protein-4-Kids™ giveback program to fight against childhood malnutrition and world hunger. **For every kilogram of APP – A Perfect Protein® that we sell wholesale, we work directly with established NGO's to donate enough protein for one child's daily meal.**

# 1=1

The distributors and manufacturers who purchase our premium protein are also granted permission to display the program logo prominently on their own products, websites, and in other forms of media. This helps to increase public awareness about the Protein-4-Kids™ program and gives our customers the added benefit of being able to champion their own corporate commitment to social responsibility.

## Helping Save Children's Lives



# PROTEIN-4-KIDS™

Feeding the world & protecting our planet

[www.advanceprotein.com](http://www.advanceprotein.com)

