

SolvPro® – Optimized Plant Protein Blends Overview



Product	Ingredients	Protein Level	Food PDCAAS*	Allergen	Description
SolvPro® 010	Pea Protein Isolate, Barley-Rice Protein Isolate	82	0.83	Gluten (barley)	Made with a lighter color barley-rice protein with a different amino acid profile, and a high functionality North American produced pea protein isolate, delivering superior mouthfeel and optimized nutrition with a lighter color and clean flavor profile. This blended product is non-GMO, but would not be available in an organic format. Suitable for use in lighter recipes such as vanilla RTM protein powders. Contains barley gluten (not gluten free).
SolvPro® 012	Pea Protein Isolate, Barley-Rice Protein Isolate	82	1.00	Gluten (barley)	Made with a darker barley-rice protein and a high functionality North American produced pea protein isolate, delivering superior mouthfeel and optimized nutrition. This blended product is non-GMO, but would not be available in an organic format. Suitable for use in darker recipes that are not color sensitive (i.e. chocolate RTM protein powders). Contains barley gluten (not gluten free).
SolvPro® 018	Canola Protein Isolate, Pea Protein Isolate	82	1.00	None	Allergen-free blend made with the highly functional combination of canola and pea protein isolates, delivering a very clean flavor profile with a neutral color and excellent functionality. Both ingredients sourced from North America, the blend is non-GMO, but would not be available in an organic version.
SolvPro® 024	Pea Protein Isolate, Brown Rice Protein Concentrate	80	1.00	None	Allergen-free combination of North American-produced pea protein isolate and brown rice protein, specifically designed for extruded snack type systems and bakery and grain products. The granulation and functionality works very well in extruded crisps, snacks and pasta. Available in organic format too.
SolvPro® 028	Pea Protein Isolate, Brown Rice Protein Concentrate	80	1.00	None	Allergen-free combination of North American produced pea protein isolate and brown rice protein, specifically designed for beverage and systems requiring higher solubility characteristics. Available in organic format too (see SolvPro 044 below).
SolvPro® 030	Pea Protein Isolate, Mung Bean Protein, Brown Rice Protein Concentrate	80	1.00	None	Allergen-free combination of North American-produced pea protein isolate, and Asian-sourced mung bean protein and brown rice protein. This is a broad-based functionality system, but specific grades and mesh sizes of the three proteins can be sourced for specific end-use applications.
SolvPro® Organic 044	Organic Pea Protein Isolate, Organic Brown Rice Protein	80	1.00	None	Allergen-free combination of North American grown and produced organic pea protein isolate and organic brown rice protein. This system was designed for baking and grain applications where solubility and mesh profile is not as important of an attribute.
SolvPro® Clear 200	Pea Protein Isolate, Barley-Rice Protein	80	0.57	None	This system combines a clear grade of barley-rice protein and pea protein isolate and is designed for use in electrolyte or clear nutritional beverages with acidic pH's down to around 5.0. Contains barley gluten (not gluten free).

* PDCAAS values are specific to the reference standard for 2-5 year olds that the FDA mandates through the CFR, this MUST be used for any food product making any protein claim marketed to any older age group; if used in a dietary supplement product and marketed as such, the PDCAAS values are much higher because they can be marketed specifically to the age group that the product is targeting, unlike the FDA food regulations.

NOTE: All of the above systems are available in an optimized flavor-masked version for flavor sensitive applications or where the finished process processing allows for this (ie RTM drinks).



Plant Proteins - Functionality Overview Summary

Protein Product	Protein Level	Cost / Lb	Flavor	Color	Allergen	Limiting Amino Acids	Functionality	Main Applications
Barley-Rice	85->90%	\$3.00 - 4.00	Mild, Malty	Brownish, Tan	Gluten (Barley)	Lys	EverGrain proprietary product, sustainable, highly soluble >95%, low viscosity, lighter color and clear versions available	RTM powders, RTD beverages, snacks & bars, sports nutrition, etc.
Brown Rice	65->80%	\$2.50 - 3.50	Grainy and Mild	Light Beige	None	Lys	High amount of insoluble material provides water binding and viscosity. Product can be chalky and gritty in application.	Meat analogs, dairy alternatives, pasta, bakery systems, etc.
Canola	>90%	\$7.90 - 9.40/lb	Clean Mild, Slight Astringency	Light to Dark Beige	None (USA); possible allergen in Europe & Canada	None	DSM proprietary product, sustainable, smooth texture/soluble, claims to be complete with a PDCAAS of 1.0 like soy, but it is a very expensive protein at this stage of commercialization.	Meat and analog products, soups & sauces, pasta, bakery, sports nutrition, etc.
Hemp	43 to 95%	\$2.50 - 3.00 (lower proteins); \$7.00-8.00 for isolate	Nutty, Grassy	Greenish Beige to Light Tan	None	Lys	Gritty, not very functional, insoluble with the lower protein technologies; high fiber content, the newer 95% isolate from HPS is much better color, flavor, and functionality but it is also more expensive.	RTM powders, RTD beverages, snacks & bars, dairy alternatives, baked goods, meat analogs, sports nutrition, etc.
Mung Bean	65->90%	\$3.65 - 3.85	Mild, Nutty, Slight Savory Notes	Light Yellow	None	Met, Cys	High solubility and gelling, water an oil absorption, sustainable crop, slightly creamy texture.	Meat analogs, egg alternatives, pasta, bakery systems, etc.
Pea	65->90%	\$2.50 - 3.50 (higher price for extra fine mesh)	Beany	Light Yellow	None	Met, Cys	Range of mesh sizes and functionalities available; gelling, emulsification, water & fat retention, solubility, etc. Insolubles create a gritty and chalky mouthfeel. Higher sodium levels sometimes problematic.	Broad range of usage including Meats& meat analogs, pasta, bakery, extruded snacks, bars, RTM & RTD beverages, sports nutrition, etc.
Soy	65->90%	\$2.50 - 3.50	Earthy, Bitter, Astringent Notes	Cream Off-White	Soy (Major)	Lys, Met, Cys	Viscosity, water binding, gelation, emulsification, some challenges with solubility and grittiness	Diverse usage including Meat analogs, RTM & RTD beverages, creamers & milks, whipped topping, soups & sauces & dressings, etc.
Sunflower	45% to 90%	\$3.00 - 5.25	Slight Nutty and Sweet Taste	Light Beige	None	Lys	High solubility, emulsification, water and fat binding	RTM powders, sports nutrition, bars & snacks, cereals, bakery systems, etc.
Wheat	65->90%	\$2.50 - 3.50	Grainy	Cream Off-White	Wheat Gluten (Major)	Lys	Main properties include elasticity, gelling, and binding.	Bakery products (as a dough improver), meat extender/replacer, snacks, etc.
White Rice	80-90%	\$2.50-3.50	Mild & Clean	Cream Off-White	None	Lys	High amount of insoluble material provides water binding and viscosity. Product can be chalky and gritty in application.	Meat analogs, dairy alternatives, pasta, bakery systems, etc.