



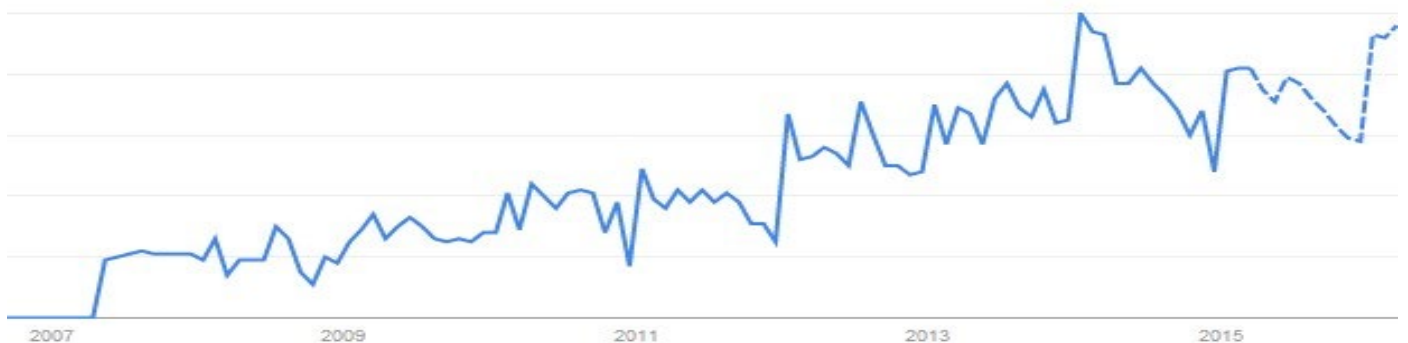
Market Trends for Plant Proteins



This Whitepaper identifies strong market trends for Plant Proteins in the Nutraceutical and Food sectors. Relevant market analysis will corroborate the growth trends and demand for these plant protein ingredients. This continued growth represents significant business opportunities for new product development in the food and beverage sectors. All Trend Charts were documented using Google Trends and are current. Google Trends shows how often a particular search term is entered relative to the total search volume. It is a very good indicator of historical trends and future demand for these products:

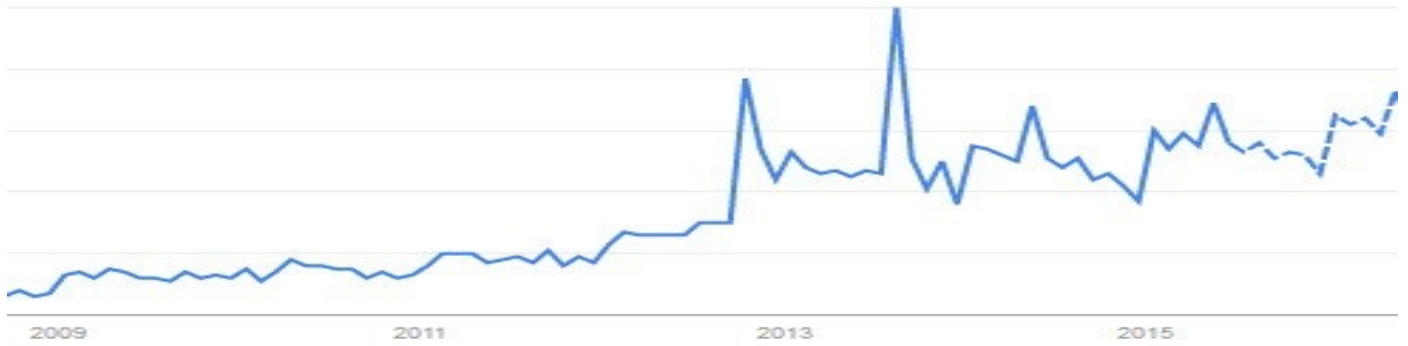
- ◆ Brown Rice
- ◆ Pea Protein
- ◆ Organic Hemp
- ◆ Purple Corn
- ◆ Moringa

Brown Rice continues to grow in popularity. It is regarded as a complete plant protein source and provides the body with nine essential amino acids that cannot be synthesized by the body.



As documented in the World Journal of Gastroenterology Research (1), brown rice is an excellent form of protein with high levels of nutritional elements. The nutritional elements of brown rice are far superior to white rice. Brown rice is richer in almost all elements in comparison, especially magnesium, niacin, dietary fiber, vitamins E, B1 and B6. NP Nutra NutraProtein Power Blend™ is a specially formulated nutritional mix of superior plant-based protein and includes Brown Rice Protein.

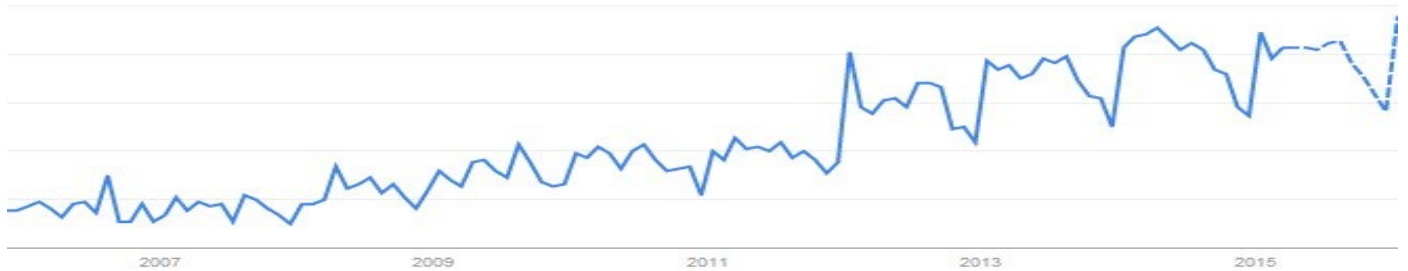
Pea Protein is another excellent source of easily absorbed and digested plant protein that has strong historical demand and its trending upwards.



In a recent randomized crossover trial at the University of Toronto (2), pea protein lowered blood glucose in healthy young men. The researchers noted that it supports the use of pea components as value-added protein ingredient in foods that help to improve glycemic control. Pea protein includes important amino acids: Lysine for growth and bone health; branched-chain amino acids (Leucine, Isoleucine, Valine) for energy metabolism; Arginine helps in muscle metabolism; and Glutamine which helps with nitrogen balance.

Pea Protein is available from NP Nutra in the premix NutraProtein Power Blend™ and as pure 80% Organic Pea Protein.

Organic Hemp has experienced strong and steady growth in popularity. Organic Hemp is rich in fiber and essential fatty acids that help maintain healthy hormone levels.



A Department of Human Nutritional Sciences Study at the University of Manitoba, Canada (3), evaluated the quality of protein from hemp seed products through the use of the protein digestibility-corrected amino acid score (PDCAAS) method. The results support protein claims for hemp seed products and provides evidence that hemp proteins have a PDCAAS equal to or greater than many grains, nuts, and some pulses. The study also revealed that hemp protein flour had the highest crude protein (CP) content at 41%.

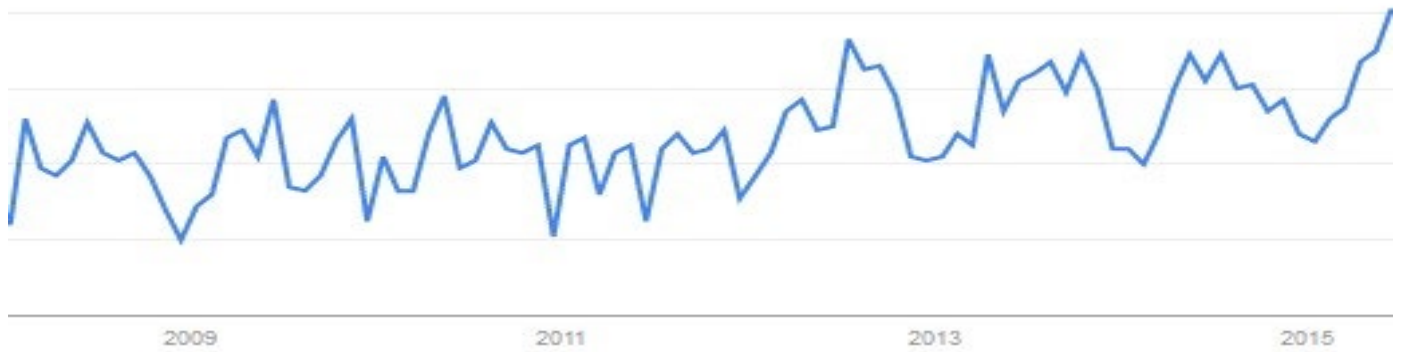
Hemp Seed CP: 23.97%

- ◆ Hemp Nuts CP: 35.86%
- ◆ Hemp Protein Flour CP: 40.68%
- ◆ Hemp Hulls CP: 12.65%



NP Nutra supplies Organic Hemp Powder and its NutraProtein Power Blend™.

Purple Corn is considered a sacred food by ancient South American cultures. It is currently experiencing a strong surge in growth.

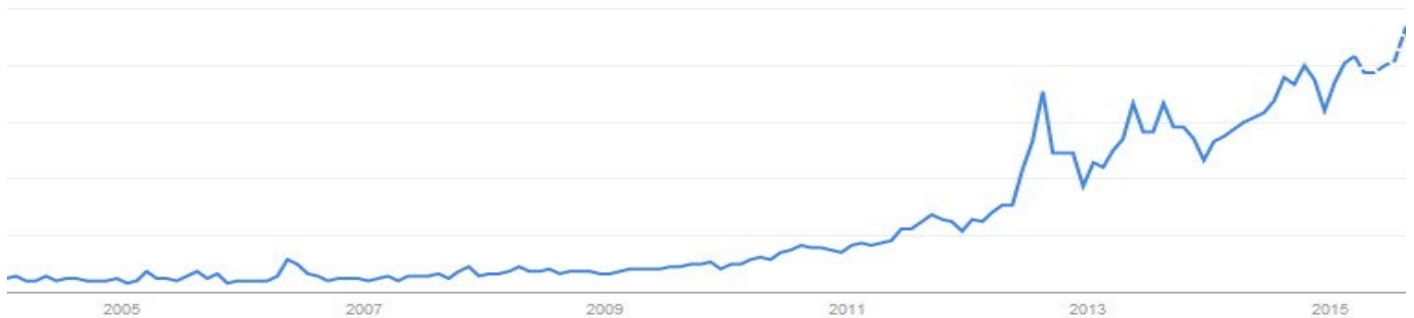


Purple Corn provides high levels of anthocyanin, an antioxidant that promotes heart health and healthy cell growth. According to a Cornell University Study (4) an international team of researchers discovered that purple corn, a rich source of anthocyanins and a phenolic compound called ferulic acid, had a beneficial effect of reducing participants' blood pressure by the end of the study. They also noted that purple corn from Peru had the highest anthocyanin concentration which was an anti-carcinogenic agent that has been shown to be effective in fighting the tumors which lead to breast and liver cancer.



NP Nutra offers pure Organic Purple Corn Powder and in its NutraProtein Power Blend™.

Moringa is a relative newcomer to the western world and its popularity continues to trend upward.



Moringa is a powerful antioxidant as well as a protein-loaded plant source that may aid the immune system and support energy levels. Moringa oleifera contains essential amino acids, carotenoids in leaves, and components with Nutraceutical properties, supporting the idea of using this plant as a nutritional supplement or constituent in food preparation. Some nutritional evaluation has been carried out in leaves and stem. An important factor that accounts for the medicinal uses of Moringa oleifera is its very wide range of vital antioxidants, antibiotics and nutrients including vitamins and minerals. Almost all parts of Moringa can be used as a source for nutrition. An Egyptian Study (5) revealed that the aqueous extract of Moringa leaves possesses potent hypoglycemic



effects through the normalization of elevated hepatic pyruvate carboxylase enzyme and regeneration of damaged hepatocytes and pancreatic β cells via its antioxidant properties. The University of Sadat City, Egypt is planning on doing more research of Moringa as an anti-diabetic agent.

NP Nutra NutraProtein Power Blend™ and Supergreens are specially formulated nutritional mixes of superior plant-based protein and include Moringa Protein. Pure Moringa Powder is also available from NP Nutra.



All these plant-based proteins have been well-researched over the years and represent some of the best and most popular proteins available today. NutraProtein Power Blend™ contains all these plant proteins. NutraProtein Power Blend™ is easily digested, has a high bioavailability rate, plus it's lactose, soy and gluten-free. With high absorbability and solubility, NutraProtein Power Blend™ combines the health-giving power of Brown Rice, Pea Protein, Organic Hemp, Purple Corn and Moringa. For optimum flavor and a pleasant aftertaste, Stevia and Vanilla are added. This protein blend can be made into a delicious, energizing drink just by adding it to water, all types of milk, or smoothies. It can also be added to no-bake and baked desserts, snacks and entrées to boost their protein content and nutritional value.

References

1. World Journal of Gastroenterology. May 28, 2010; 16(20): 2484–2495.
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 4. Study shows anthocyanin-rich purple corn extract can lower high blood pressure. August 2, 2013. <http://weill.cornell.edu/news/news/2013/08/research-highlights-from-around-weill-cornell-1.html>
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Stay tuned for more market trends in the series over the next few months.

For more information on our ingredients please contact us.

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Note: The Charts in this Whitepaper have been provided by Google Trends which is a public web facility of Google Inc.

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