



STATE
OF THE
MARKET '19



STATE OF New Product Development

Axiom Foods Expands Beyond Proteins. Starches, “Milks” & Brans, Oh My!

Vegostar™ Pea Starch

Check out our new highly functional Vegostar™ Pea Starch which is a non-GMO, gluten-free, economically efficient alternative to some modified starches including tapioca. This new-comer to the U.S. market is a by-product of our pea protein production and thus it boasts similar benefits of being gluten and soy free.

AvenOlait® Oat Dairy-Alternative

We know that Axiom was built off of rice but until you have tried the yummy mild flavor and nutrient-dense benefits of uniquely gluten-free AvenOlait® Oat Dairy Alternative you won't understand the possibilities. Oh and did we mention it's also certified Whole Grain, and grown + made in the U.S.A.?

Other new products in the pipeline include a wide range of rice bran-based ingredients that will rock the dairy alternative and equine markets, among others. Let us know if you want us to keep you updated on what's around the corner.

Plant Proteins Go More Neutral & Functional

Yes Axiom is working on solving the soluble plant protein challenge in the future, but in the meantime innovation is focused on plant proteins which are more neutral in both color and flavor. While rice protein has been inherently lighter in color and more neutral in flavor, the legumes and seeds have been a little more of a challenge.

Well, the great news is that tomorrow is today when it comes to Hemp Protein. Axiom's new **Cannatein™** is virtually neutral in taste and is the lightest color on the market (REALLY). To add to that, it has a minimum 58% concentration and a minimum 12-month shelf life. What's next? Next round of tests are expected to verify a shelf life at least 50% longer.

The number of functional options in pea protein has increased with the introduction of **Vegotein MA™** for meat analogue and replacer solutions. The pea protein market will be rocked with more functional choices.

STATE OF THE MARKET 19

STATE OF The Rice Protein Market

General Overview

As predicted last year, Axiom's...

- **New agricultural sources** for high quality brown rice have been secured
- **New 5x-capacity factory** has been up and running for more than a year with early operational kinks worked out
- **Prices have stabilized**
- Worldwide rice protein supply has caught up to demand and there is alas the long-awaited **consistent lead time with surplus**

While 2017 was a challenging transitional year where rice protein demand grew exponentially faster than organic agriculture and operations could match, 2018 proved to be the start of a whole new world. With over a dozen functional versions and hundreds of containers a year (and growing), rice protein production continues to be larger and growing faster than pea protein production. Axiom Foods continues to be the largest supplier of the rice protein market despite one recent competitor entering the market while facing flavor and specification challenges, including pesticide, micros and GMO issues the USDA and FDA are aware of and is expected to affect their supply.

The key to this growth is that allergen-friendly rice protein has reached the tipping point from “alternative” to mainstream thanks to:

- **FDA GRAS and Non-GMO Project Verified status**
- **New 3-year shelf life**
- A naturally and consistently neutral flavor
- Multiple functional versions and more in the pipeline
- Claims-based clinical trials showing its equal benefits to whey
- Its unique high quality, allergen-friendly, sustainable position
- Large and increasing commercial quantities on track to more than double each year

While double and triple digit growth is exciting, moving from the alternative into the mainstream while maintaining the highest quality position in an industry of knock off artists poses some challenges, which can include increased lead time and prices—due to new organic agriculture, factories, and quality management. Axiom has reached the light at the end of the tunnel where those factors are under control.

The number of growing areas in the world that meet the organic, non-GMO, low heavy metal agricultural standards is indeed limited but, as demand grows, so will these sources. We are happy to report that our sources are exclusive pristine areas throughout Asia but do not include China. We are regularly asked if we source from California for more than our rice dairy alternatives; but since <1% of U.S. crops are certified organic and the majority of that is consumed as whole rice in a bag for boiling, the supply just isn't a current, viable opportunity.

3 Clinical Trials Down, 2 New Ones to Come

The publishing of the latest clinical trial showing that **Oryzatein®** rice protein is as beneficial as whey protein isolate in sports nutrition makes for the third published clinical trial. What's special is that the **Plant vs. Animal Challenge** was replicated with elite, UFC professional athletes—and it was videotaped. Not only does this support why pro-athletes are increasingly using products featuring Axiom Foods' plant proteins but also the resulting webisode series helps put a consumer face on scientific news.

See for yourself at PlantVsAnimal.com.

The next clinical trial is already in process, where study participants consume lower levels of rice vs. whey protein each day. The previous studies were based upon approx. 48 grams of protein per day while the new study will be based upon 24 grams protein. Right behind this in the pipeline is a weight management study that will add to the growing list of claims.

Check out the growing list of published studies about plant proteins at AxiomFoods.com/studies.

6 Patents Down, 21 Pending

FDA GRAS **Oryzatein®** has been awarded 6 patents just since November 2017, with many more right around the corner. The "method of use" protection grants exclusive right to Axiom Foods and our approved customers to use the clinically-shown product claims when formulating with multiple functional versions of Axiom's **Oryzatein® Brown Rice Protein**. These claims include increased muscle mass, increased strength, increased power output, and increased endurance.

Axiom Foods has our customers' back. They can enjoy the protection while Axiom actively defends the claims from other brands formulating with other rice proteins. And those patents are just the beginning of added benefits to Axiom's customers.

More FDA GRAS Ingredients

It's official! **Oryzatein® SG-BN** is now FDA GRAS which means all doors are open to the entire line of multi-functional **Oryzatein** SKUs. In addition, this U.S.-made product has increased production to new commercial levels.

50% Increase in Rice Protein Shelf Life!

We've always believed it but now we can prove it that all of Axiom's **Oryzatein® Brown Rice Protein** SKUs have a 3-year shelf life! In addition to the increase in available rice protein inventory, this opens up the opportunities for additional applications with longer shelf lives, purchasing in more economically efficient quantities, and ensuring on-hand inventory when productions are scheduled.

Ingredients Now Non-GMO Project Verified

The verification process is complete! Axiom's plant protein SKUs manufactured outside of the U.S. plus rice and oat dairy-alternatives are now Non-GMO Project Verified. While all of Axiom's ingredients are part of Non-GMO project verified finished products, we understand the benefits of being officially verified at the supplier's level. Unique to Axiom Foods, this will help speed up the verification process for all our customers and provide assurance that Axiom only innovates with non-GMO sourced crops, unlike potential competitors.

WHAT'S NEXT? In addition to even more functional versions in the pipeline and reaching current production goals of 100 containers per month, plans are underway for reducing the foot print of rice protein production while supplying more markets on more continents. More details to come.



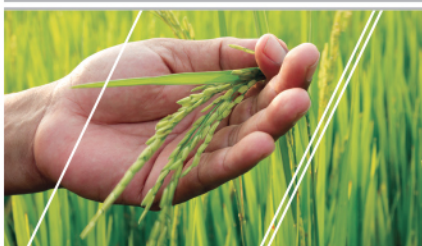
STATE OF The Pea Protein Market

General Overview

Similar to the rice protein industry, **pea protein has reached the tipping point to mainstream** but unlike rice protein, the pea protein market is saturated with multiple manufacturers. Axiom entered the pea protein market in 2011 but as of 2017, in partnership with Yantai Oriental, had the strongest year of pea protein growth and already moved up to the position of 3rd-largest producer. This is due to growing demand, Axiom's unique "guaranteed free from gluten and soy" quality position, one of the best flavor profiles, and a window of opportunity opening while the largest manufacturer dealt with factory closures. As a point of exclusivity, 100% of all the gluten-free and soy-free guaranteed product produced by the Yantai Oriental factory is available from Axiom in the U.S.A. Axiom maintains the position of equally highest quality, lower conventional price, and the largest supply.

All quality pea protein manufacturers are on a path toward higher prices as predicted, largely due to pea protein demand growing at a faster rate than the organic North American agricultural supply. It is especially taking time as less than 1% of U.S. crops were certified organic as of 2017 and it takes 3 years of growing organically before a crop can be certified. Since growing organically costs more than conventional (thus the farmers are losing money during the 3 years of converting to organic) and supply is so small, it is understandable why truly organic pea protein must cost significantly more than conventional—until organic crops are the majority. For this reason other pea manufacturers are resorting to sourcing Chinese pea crops which lack the appropriate transparency of transaction receipts from the organic crop level.

WHAT'S NEXT? The key is getting to neutral first, given that in the pea protein industry, after quality—taste and functionality are king. In addition to supplying the original Vegotein pea protein that is known for being great tasting, Axiom's innovation team has worked to reach commercial quantities on the most neutral tasting and color pea protein. Axiom has also innovated a meat analogue pea protein SKU which tests as superior to the leading brand in applications such as hot dogs.



Axiom Foods, Inc.
12100 Wilshire Blvd., Ste. 800
Los Angeles, CA 90025

STATE OF THE MARKET '19

STATE OF Industry Marketing Efforts

CEO Summit Calling for Speakers in March

Axiom Foods started the annual **CEO Summit** three years ago with the goal of giving a voice to members of the natural products family who have myths to bust and inspirational stories to share. It's the opportunity to educate the industry, the media and the consumers when everyone comes together for Natural Products Expo West. Check out prior summits at AxiomCEOSummit.com.

Nominations of CEO panel speakers is open for March 2020 by emailing ceosummit@axiomfoods.com.

Plant Protein Month Speaks to 10,000 Retailers & 500,000 Consumers in April

This annual retailer and consumer education program launched in 2017 has included a retailer display contest that has supported Vitamin Angels. Brands are invited to participate by sharing educational information with their consumers and to be a co-sponsor.

Check out **Plant Protein Month** on Facebook and resources on PlantProteinMonth.com, then email us at Kay@AxiomFoods.com.

ph 800.711.3587
fx 310.857.6747
www.axiomfoods.com
info@AxiomFoods.com

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Plant Proteins Go More Neutral and Functional—Part 2

Since the 2019 State of the Market report was published, Axiom has added another neutral protein to the catalog of plant proteins processed in the U.S.

VegOtein N™ is the most neutral tasting pea protein on the market. Removing the need for masking agents and increasing the list of potential applications, this is a sign of neutral proteins to come. Neutral pea is in addition to Cannatein neutral hemp protein and Oryzatein rice protein which has always boasted a neutral flavor.

Same as the other VegOtein SKUs, it is also guaranteed free of soy and gluten, which is not typical due to the extensive logistics needed to prevent common cross-contamination between pea and wheat fields, plus shared machinery and shipping containers.

Other “Organic” Rice and Pea Proteins Testing Positive for RoundUp and More

As the demand for plant proteins has exploded in nutraceuticals, food and beverage, plus personal care and more, all ingredient manufacturers have been working quickly to keep up with demand. The challenge is that with rapid growth can come bumps in the road.

It is now understood how curiously lower-cost “organic” rice and pea proteins have appeared on the market, and how they are able to keep artificially lower prices that don’t fit the inherent costs of organic farming. They are cutting corners and selling plant proteins which don’t truly meet USDA organic standards. The facts are that multiple other...

- “Organic” Pea Proteins test positive more times than not for Glyphosate (Round Up) 2x to 200x more than the organic standards allow.
- “Organic” Rice Proteins frequently test positive for Diphenylamine, Isoprothiolane and other pesticides above the organic standards.

Most of these are pesticides not allowed in the U.S., at all, and none of them are allowed in organic



certified products anywhere close to the levels they are testing at.

The good news is that these suppliers are only a fraction of the market and plant proteins continue to be a necessary and trusted source of protein claims.

