

Protein Systems:

Next-generation plant protein solutions.

Three levels of solutions and services to meet consumer demands.









The market opportunity.

The popularity of plant protein is continuing to gain global momentum and shows no signs of slowing down. As plant-based eating has gone mainstream, more consumers are looking for environmentally friendly, plant-based solutions that reinforce their health-focused lifestyle goals, while still delivering a culinary-forward taste profile and a variety of accessible formats.

\$307B 10%

Expected value of the global alternative market* by 20301.

The expected compound annual growth rate (CAGR) for top alternative protein categories* from 2021 to 20301.

A big market opportunity is **knocking** for your brand.

COVID-19 has had a profound effect on the plant-based market, increasing appeal. 50% of experienced global plant protein users increased their consumption of alternative proteins during the pandemic, mainly because of greater health consciousness².



Flexitarians now represent more than half of the global population³. MEGANS 59% of global consumers self-identify as following a plant-based lifestyle³.

Global consumer motivations to alternative products.

Health reigns supreme.

In looking for plant-based solutions that reinforce their nutrition and health-focused lifestyle goals, global consumers see perceived health benefits* as the top motivation for consuming meat and dairy alternatives—with animal welfare concerns and nutritional benefits closely following⁵.

Top Motivations for Meat Alternatives

	Health Benefits	Nutritional Benefits	Environmental Concerns	Animal Welfare Concerns
	65%	59%	64%	54%
	61%	64%	49%	60%
	58%	72%	56%	64%
	74%	73%	74%	68%
*)	57%	49%	53%	49%
Global Total	63%	63%	59%	59%

Top Motivations for Dairy Alternatives

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	Health Benefits	Nutritional Benefits	Environmental Concerns	Animal Welfare Concerns			
	62%	55%	44%	40%			
	59%	47%	45%	44%			
	49%	46%	45%	49%			
	64%	55%	57%	46%			
*3	57%	57%	48%	36%			
Global Total	58%	52%	48%	43%			

Today's modern protein consumer.

ADM Systems paves the way for mindful, modern protein.

As consumers become increasingly savvy about proteins they desire in food and beverage experiences; they yearn for new plant-based offerings that meet their health and wellness motivations.

59% of global consumers say they would

like more protein in their diet.4



ADM's Protein Systems platform was designed with today's wellness-focused consumer in mind.

Consumers associate protein with healthy living and healthy aging. A larger percentage of consumers connect protein to these top benefits4:



Helps me stay active as I age



Helps support the immune system



General health and wellness

Through the delivery of consumer-preferred next-generation plant-based products, along with accelerated speed-to-market capabilities, an unmatched pantry of solutions and a legacy of world-class technical expertise, now you can serve up solutions for this growing demand.

Discover ADM's ever expanding Protein Systems platform with three levels of integrated solutions and services to meet any need.

Level 1: MaxFlex™

At a glance.

What is MaxFlex™?

+ Protein-advantaged powdered blends to maximize protein diversity and optimize protein quality.

Gain an edge.

+ For synergistic, positive nutrition and protein-diverse applications, add MaxFlex™ protein-advantaged powdered blends in plant-forward bakery, snacking, beverage, specialized nutrition and dairy alternative products.

Available offerings.

+ MaxFlex™ Pea Wheat 002

Consumer insights.

As today's Flexitarian consumers are making smart choices that align with their motivations for health and nutrition, they're also looking to incorporate more plant proteins into their diets. As the source of protein matters to global consumers, they're growing increasingly savvy about the types of plant proteins used in their favorite plantforward food and beverages. They are familiar with terms such as protein quality, protein diversity, and nutrient density.



of global Flexitarians are approaching the lifestyle by adding more plant-based foods and beverages to their diets (Plant+ Flexitarian)3.

U.S. Plant Protein Consumer Awareness⁶



61%

of U.S. plant protein consumers find it appealing to have a blend of proteins in their favorite plant-based alternatives.

APPLICATION CONCEPT:

Thin-Crisp Blueberry Lemon Cookie

DESCRIPTION

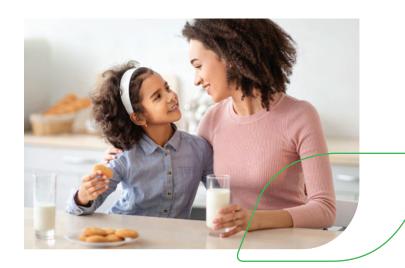
This delicious, high protein Thin Crisp Blueberry Cookie features superior protein nutrition along with the same scrumptious taste, texture and mouthfeel as the classic wheat flour version. Using MaxFlex™ Pea Wheat boosts the protein level enabling a good source of protein claim.

CHALLENGE

Creating a protein-packed indulgent snack that still delivers pleasing taste and appearance for an exceptional sensory experience.

CHALLENGE SOLVED

Always up to the task, our team created an indulgent, protein-packed cookie by utilizing a protein-diverse blend that increased the protein amount from a low 2 grams, to a staggering 6 grams. The result was a well-rounded and permissibly indulgent snack, perfect for the Flexitarian consumer not willing to sacrifice on taste or nutrition. Through decades of formulation expertise, technical know-how, and our full pantry product development capabilities, we achieved the perfect balance of great taste and protein-rich nutrition in every bite.





CONCEPT HIGHLIGHTS

- + Protein Enriched (6g/36g Portion Size)
- + Protein Diversity Through Multiple Sources of Proteins

ADM INGREDIENTS

- + MaxFlex™ Pea Wheat 002
- + NutriStem™ Navy Bean Powder
- + Sorghum Flour
- + Palm Oil
- + Natural Flavors

ALLERGENS

- + Egg
- + Wheat



⁵ ADM OutsideVoicesM Global Protein Consumer Discovery Study, August 2020

Level 2: AccelFlex™

At a glance.

What is AccelFlex™?

+ Value-added protein ingredients to address your texture, structure, and function challenges.

Gain an edge.

+ Leverage AccelFlex™ functional or texture systems to deliver the bite and chew consumers expect and accelerate production of on-trend meat alternative products that meet your nutrition needs.

Available offerings.

AccelFlex™ Texture Systems:

- + AccelFlex™ TS Fibrous Soy S68
- + AccelFlex™ TS ST60-E Soy Crisps
- + AccelFlex™ TS ST60 Non-GMO IP Soy Crisps
- + AccelFlex™ TS ST80 Non-GMO IP Soy Crisps
- + AccelFlex™ TS PC70 Textured Pea Protein (pea and chickpea)
- + AccelFlex[™] TS PN65 Textured Pea Protein (pea and navy bean)

AccelFlex™ Functional Systems:

- + AccelFlex™ Soy-Based Binder System
- + AccelFlex™ Pea-Based Binder System

Consumer insights.

Our research has found that a majority of today's Flexitarian consumers want their meat alternatives to not only taste great, but also embody the same texture, mouthfeel and appearance as animal-based meat creations. These alternatives must be seen to mimic the experience of eating tried-and-true meat-based products⁵. This works in tandem with the need for options that support health-focused lifestyle choices, because we know today's Flexitarian consumers aren't willing to compromise.

Importance of Taste vs Nutrition for Plant-Based Products ⁵							
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	Taste is more important	Taste & Nutrition are equally important	Nutrition is more important				
	27%	63%	10%				
	28%	68%	5%				
	27%	69%	5%				
	9%	80%	11%				
*3	7%	72 %	21%				
The majority of consumers think taste and texture are equally important in plant-based offerings.							

Substitution not sacrifice.

Many consumers admit they struggle to give up meat and dairy in the long-term because of their dissatisfaction with the alternative's taste and texture⁴. Other consumer-identified barriers and opportunities to consumption that ADM can help you address are as follows:

Why are global consumers dissatisfied with meat alternatives?4



Lack of range of products/ not enough brands



Lack of availability of different types of products (i.e., chicken, seafood, etc.)



The taste of products could be improved

APPLICATION CONCEPT:

Plant-Based Homestyle No-Meatball

DESCRIPTION

Indulge your senses with this vegan take on a savory, homestyle meatball that pairs well in a sauce, with pasta, on a hoagie, or as a standalone appetizer sure to excite. This mouthwatering meat alternative is protein-packed and loaded with rich, decadent flavor that provides the expected taste and texture consumers seek.

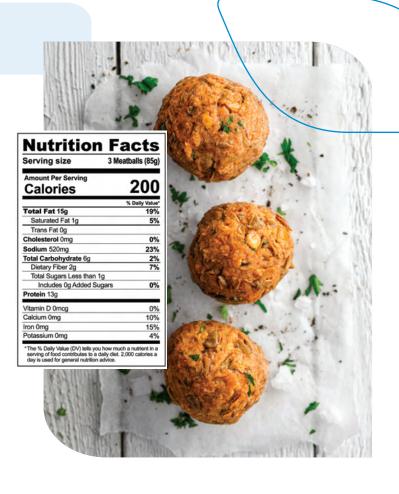
CHALLENGE

Creating a plant-based meat alternative that provides a meat-like experience in texture and structure with all the savory flavor the consumer expects.

CHALLENGE SOLVED

Never one to back down from a no-meat challenge, we crafted a plant-based meatball that looks and tastes similar to a meat-based product—truly a perfect substitution without sacrifice. Powered by a unique pea and chickpea textured crumble, this high-water holding capacity inclusion replicates the structure in meat experiences like never before. Pair that with our savory flavor expertise and now you have both the taste and texture familiarity in your meat alternative meals. Utilizing our exceptional facilities and unmatched technical expertise, we have developed a formulation with this star ingredient that not only elevates the consumer eating experience, but also delivers deliciousness in every dish.





CONCEPT HIGHLIGHTS

- + 100% Plant-Based
- + 13g Plant-Based Protein per 85g Serving
- + 15% RDA of Iron per 85g Serving

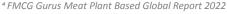
ADM INGREDIENTS

- + AccelFlex™ TS PC70 Textured Pea Protein
- + AccelFlex™ FS Binder
- + Natural Pork Sausage Type Flavor
- + Natural Pea Protein Masking Flavor

ALLERGENS

+ None (Free of the Big 8 U.S. Allergens)





Level 3: EdgeFlex™

At a glance.

What is EdgeFlex™?

+ Service platform offering you a solutions focused approach to your product needs that enables speed to market, all with unmatched technical expertise and world-class applications support.

Gain an edge.

+ For those looking for variety and culinaryinspired, plant-forward product formulation expertise, leverage EdgeFlex™, the promise of ADM, and our industry relationships to support next-gen meat alternative solutions.

Available offerings.

Meat alternative solutions for:

- + Plant-Based Poultry Systems
- + Plant-Based Pork Systems
- + Plant-Based Beef Systems

Consumer insights.

As more consumers continue following plant-based lifestyles, their interest in elevated and global plant-based solutions is growing exponentially, allowing them to mix up their mealtimes and become their own kings and queens of the kitchen. Our recent research with global consumers showed that shredded/pulled meats are the #2 ranked format globally (after crumbles/ground meats), and the #1 format that generates the most interest in the U.S., China and Germany.

Meat alternative formats global consumers are most interested in trying but have not yet tried*:



Crumbles/Grounds
Meat Alternative
34%



Shredded/Pulled Meat Alternative 33%



Deli Meat Alternative **31%**

Going beyond consumer kitchens to solve commercial-grade cuisine challenges. From our global protein occasion study we learned⁵:

55% vs 41%
Foodservice occasions

Total occasions

41%
Total
occasions

Global meat and dairy consumers' openness to switching to plant-based options.



Plant-based foodservice occasions are on par with or overperform relative to total food and beverage occasions.

EdgeFlex™ can elevate any foodservice offering.

Partner with our team today!

APPLICATION CONCEPT:

Halal-Style Plant-Based Chicken Shred

DESCRIPTION

This juicy, plant-based shredded chicken is expertly seasoned with an authentic Halal-style spice mixture to replicate the on-trend Middle-Eastern cuisine's taste and flavor. Most commonly found in large city center food carts, alternative meats like this can be used across a wide variety of applications and has limitless inclusion potential for endless applications. Leverage ADM's EdgeFlex™ service platform to innovate your protein-packed meal solutions today.

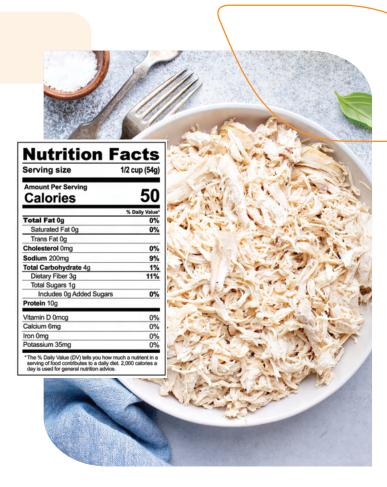
CHALLENGE

Create an on-trend meat alternative format that powers any snack or meal solution. Variety is a spice of life!

CHALLENGE SOLVED

Applying our EdgeFlex™ service platform to our unmatched ingredient pantry, we crafted a plant-based chicken alternative concept that looks and tastes almost identical to any meat-based, Middle-Eastern street cart favorite. Our future forward consumer insights coupled with our expansive technical expertise and innovative service platform have allowed us to perfect an easy, versatile format for any solution.





CONCEPT HIGHLIGHTS

- + 100% Plant-Based
- + 10g Plant-based Protein per 1/2 Cup Serving
- + 3g Fiber per 1/2 Cup Serving

ADM INGREDIENTS

- + Arcon® T Textured Soy Protein Concentrate 158-101
- + Natural White Meat Chicken Type Flavor
- + Natural Soy Masking Flavor
- + Natural Shawarma Seasoning

ALLERGENS

+ Soy





Why ADM Protein Systems.

Get an edge with true plant protein perfection, thanks to Protein Systems.

ADM is a full solutions partner, who understands your formulation challenges, and can help you optimize your product for market—from marketing insights and consumer validation to sensory testing. We invest in new technology and processing methods to bring you what's next in protein nutrition solutions, today. You can count on ADM to keep delivering, with quality of product and reliability of supply.



Our advantage.

Through science-backed product development, our team paves the way to create consumer-desired solutions. With the ability to leverage our vertically-integrated portfolio in conjunction with expert taste, nutrition, texture, functional benefits, and color considerations we can bring "One ADM" solutions to the next level.

Partner with our specialists to gain extensive cross-functional team expertise, global manufacturing and supply chain footprint assistance for any stage of the value chain to achieve tailored, innovative and expertly-designed plant-based products.

Let's Collaborate.

food@adm.com | adm.com/proteinsystems

