ASXAN
ASXAN BIOTECH GROUP

FERMENTATION-DERIVED · NON-DAIRY · COMPLETE PROTEIN

A Third Protein Route - Built for High-Protein Growth

ASXAN manufactures yeast protein ingredients for food and nutrition — offering high-protein, low-fat and hydrolyzed grades that expand formulation choice beyond dairy and plant proteins.

Protein quality, supply choice and product differentiation - putting yeast protein in the same competitive set as whey and major plant proteins.

2000×

PRODUCTION EFFICIENCY vs. ANIMAL PROTEIN

Shorter production cycles and greater resource efficiency add a new source option to the protein supply.

HALF THE PRICE OF WHEY PROTEIN

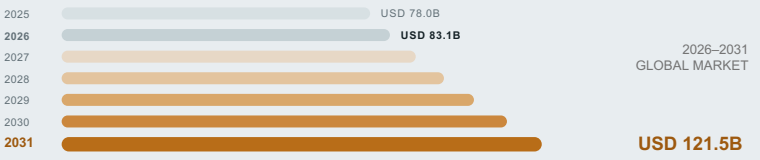


GROWTH SIGNAL

Protein Demand Continues to Rise

Global Protein Ingredients Market

7.9% CAGR



Source: MarketsandMarkets, Protein Ingredients Market (Animal, Plant, Insect & Microbial)—Global Forecast to 2031 (June 2026).

SUPPLY PRESSURE

Traditional Supply Chains Under Pressure on Multiple Fronts

- **Production Cycle**
- **Climate & Production Regions**
- **Land & Water Resources**
- **Trade & Prices**

Protein sourcing is no longer just a one-off purchasing decision; it also shapes long-term portfolio resilience.

WHAT IS YEAST PROTEIN

Made from food-grade ***Saccharomyces cerevisiae*** biomass, ASXAN yeast protein is produced through industrial fermentation as a non-dairy complete-protein ingredient for nutrition products and everyday foods.

PRODUCT IDENTITY

NON-DAIRY COMPLETE PROTEIN

Fermentation origin creates new space for product differentiation and brand expression

Allergen-free | **Lactose-free** | **Clean label** | **Non-GMO** | **Vegan** | **Animal-free**

Claims are confirmed by grade, formula and target market.

WHY ASXAN: High-protein, low-fat and hydrolyzed grades, integrated manufacturing and focused formulation support.

ASXAN YEAST PROTEIN GRADES

High Protein for Nutrition and Everyday Foods

Defatted YP-90DF pairs high protein with low fat. Hydrolyzed HYP-85 offers good solubility.

PRODUCT RANGE

DEFATTED HIGH PROTEIN

HIGH PROTEIN, LOW FAT

YP-90DF

≥90.0% PROTEIN (DRY BASIS) **≤2.0%** FAT

Third-Party Sample Test: **Fat 0.9 g/100g**

HYDROLYZED HIGH PROTEIN

HYDROLYZED PROTEIN

HYP-85

≥85% PROTEIN (DRY BASIS) **≤3%** FAT

Good solubility

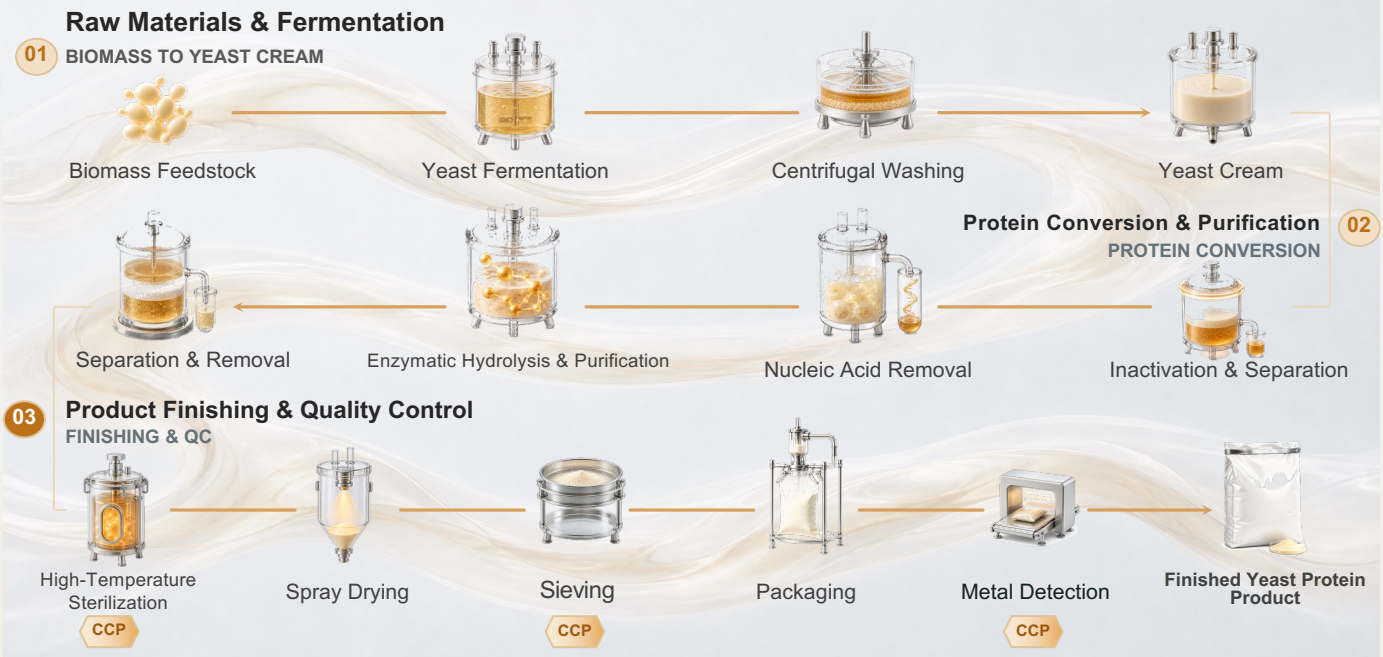
SUPPORTING GRADES	PROTEIN	FAT
YP-85DF	**≥85%**	≤2.0%
YP-90P	**≥90%**	≤6.5%
YP-85P	**≥85%**	≤6.5%
YP-80P	**≥80%**	6–9%

DEFATTED FORMULATION HEADROOM

High protein and low fat are achieved together at ingredient level - creating more room for nutrition positioning, texture design and controlled blending.

INTEGRATED MANUFACTURING

3 STAGES · 3 CCPs · FINISHED-PRODUCT CONTROL



ASXAN MANUFACTURING CONTROL

From food-grade biomass to finished yeast protein, with three HACCP critical control points.

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NUTRITIONAL PROFILE & PROTEIN QUALITY

Complete Protein from Yeast with Amino-Acid Advantages

Complete Protein

ASXAN protein profile · Non-dairy

18 AA
94.52%*

9 EAA
44.02%*

BCAA
≥20.0
g / 100g protein

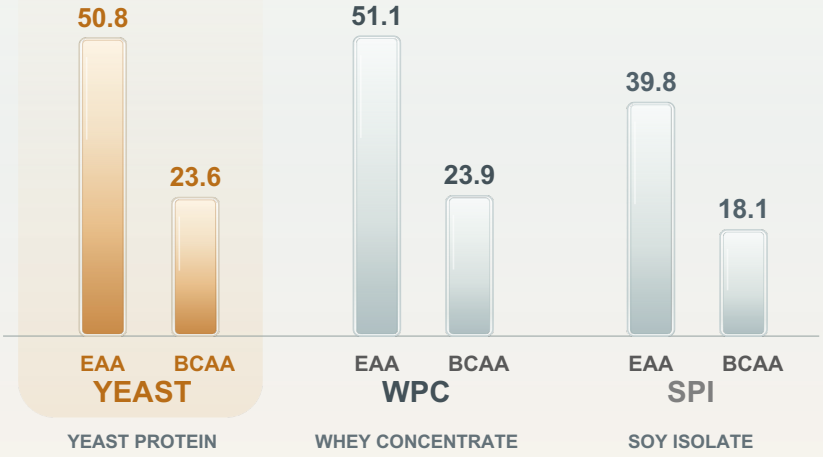
LEUCINE
8.47%*

1.0
PDCAAS
ASXAN
Yeast

SGS TESTED * report No. ASH25-0***843-02

EAA / BCAA

Yeast approaches WPC and exceeds SPI on both measures.



Published comparison · g/100 g protein. | * Food Chem. 4*3 (2025), 14**78.

DIAAS

Yeast challenges whey in vitro.

Four proteins · In vitro

* Food Chem. 4*2 (2025), 14**76.



Six proteins · **In vivo and in vitro**

Model	WPI	WPC	YEAST	SOY	PEA	WHEAT
In vivo (growing rats)	127	114	82	61	56	20
In vitro (INFOGEST)	140	119	127	86	53	31

>3-year reference pattern. * Food Chem. 4*3 (2025), 14**78.*

Yeast outscored soy and pea in all three comparisons.

POSITION

Yeast offers a complete non-dairy protein with EAA and BCAA levels close to whey concentrate and more arginine than either whey reference.

Five Amino-Acid Advantages

Yeast vs WPC80 / WPI references

Arginine
5.97–6.17
WPC80 2.45 · WPI 1.89
2.4–3.3×

Lysine
9.31–9.36
WPC80 9.06 · WPI 9.47
NEAR WPI
† CEREAL BLENDS

Phenylalanine
5.39–5.40
WPC80 3.08 · WPI 2.81
1.75–1.92×

Tyrosine
4.35–4.44
WPC80 2.75 · WPI 2.77
~1.6×

Histidine
2.47–2.49
WPC80 1.70 · WPI 1.51
1.45–1.65×

g/100 g protein.

† Lysine-rich yeast protein complements lysine-limited cereal proteins in bakery, bars, breakfast nutrition and protein blends.

APPLICATIONS & PRODUCT DEVELOPMENT

From High-Protein Nutrition to Everyday Foods

LEAD WITH A NON-DAIRY COMPLETE PROTEIN

Fermentation-derived protein for high-protein, non-dairy products, with low-fat grade options.

OPEN MORE ROOM IN A WHEY FORMULA

Blend design around amino-acid balance, fat targets, mouthfeel and cost-in-use.

Plant-protein blends can also be explored.

APPLICATIONS

GRADES, USES & FORMULATION PRIORITIES

NUTRITION POWDERS



YP-90DF / HYP-85

High-protein mixes for sports nutrition and meal replacement.
Defatted protein to limit fat or hydrolyzed protein for solubility.

Protein per serving, wetting, dispersion and flavor.

RTD BEVERAGES



HYP-85 / YP-90DF

Protein waters with hydrolyzed protein or shakes with defatted protein in suspension.

Protein level, pH, minerals and heat process; mouthfeel and storage stability.

BARS



YP-90DF / YP-85P / YP-90P

Enrich cereal, nutrition and soft-texture bars.
Defatted protein for tighter fat targets or regular matched to the protein target.

Protein per bar, moisture migration and bite during storage.

BAKERY & PREMIXES



YP-80P / YP-85P / YP-90P

Protein-enriched bread, biscuits, cakes and everyday snacks.

Dough handling and water balance; crumb, color and aroma after baking.

SAVORY FOODS



YP-80P / YP-85P

Protein enrichment for soups, sauces, instant noodles and meat alternatives.

Flavor, water/oil binding and texture after cooking.

DAIRY ALTERNATIVES



YP-85DF / YP-90DF

Defatted protein for dairy-free drinks, yogurt alternatives or frozen desserts.

Emulsion, suspension and mouthfeel; acidification or melting behavior by format.

FORMULATION CO-DEVELOPMENT

Sensory, dispersion, solubility and foam targets for formulation.

Low Yeast Base Note & Flavor

Target a low yeast base note, with flavor and mouthfeel suited to the food and protein level.

Dispersion & Solubility

Match grade selection and processing to wetting, dispersion, solubility and suspension needs.

Foam Control by Application

Set foam targets by product format: low foam, rapid dissipation or stable foam.

Cost comparisons use the same protein, sensory and process targets per finished serving.

NUTRITION CO-DEVELOPMENT

Research directions for product innovation and co-development.

Muscle & Healthy Aging

Complete protein, BCAA and leucine for sports-nutrition and healthy-aging concepts.

Digestion & Amino-Acid Release

Digestion kinetics and amino-acid release profiles.

Gut Microbiota & SCFAs

Microbiota, SCFAs and gut-barrier research.

Calcium Absorption & Bone Nutrition

Calcium absorption and protein–calcium nutrition.

Grade recommendations, technical documents and samples available on request.

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