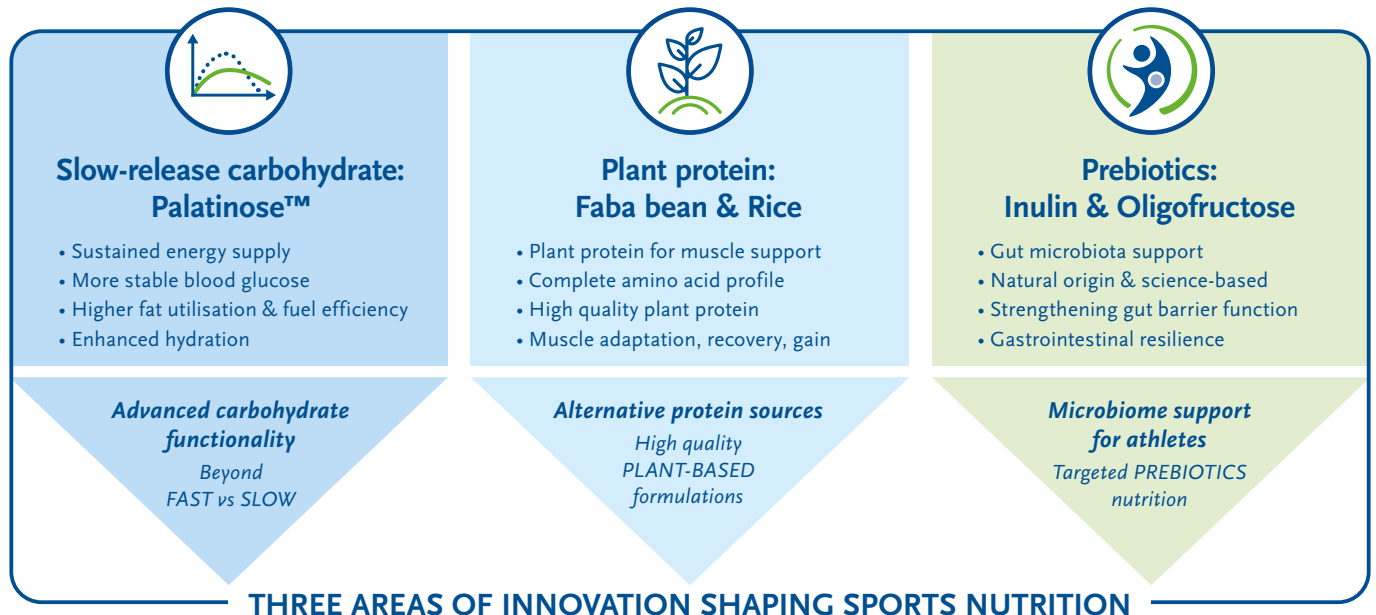




Sports Nutrition for Energy, Muscles & Gut

Sports nutrition helps athletes and active individuals meet the nutritional demands of training, competition and recovery. It encompasses a broad range of products designed to support endurance, muscle function, hydration, performance and health. Driven by advances in ingredient science and functionality, as well as changing consumer expectations and market trends, sports nutrition is moving beyond traditional energy and protein concepts. Palatinose™, plant-based proteins and the prebiotic fibres inulin and oligofructose offer targeted solutions for the next generation of sports nutrition products.

Powerful ingredients for sports nutrition



THREE AREAS OF INNOVATION SHAPING SPORTS NUTRITION

Sports nutrition across the day



*Rapidly available carbohydrates preferred for fast recovery; targeted benefits with Palatinose™

Key pillars of sports nutrition



ENDURANCE NUTRITION

Carbohydrates are the principal fuel for endurance exercise, powering athletes through training and competition with sports drinks, gels and chews. Stable blood glucose levels and improved fuel efficiency – through greater fat utilisation – are key aspects to sustain endurance performance.¹

- **Palatinose™ provides sustained energy supply, supports more stable blood glucose levels, and promotes greater fat utilisation during prolonged exercise.²**
- **Palatinose™ can also enhance ultraendurance training adaptations³ and hydration⁴.**



MUSCLE NUTRITION

Protein supports muscle maintenance, growth, training adaptation and recovery. Plant-based powders, shakes and bars are increasingly popular alternatives to traditional protein products. Well-formulated plant proteins can support muscle protein synthesis as effectively as animal protein when all essential amino acids are provided in sufficient amounts.⁶

- **Combining faba bean and rice proteins delivers a complementary amino acid profile for effective plant-based muscle support.**



RECOVERY & REGENERATION

Recovery starts immediately after exercise and continues for hours – even overnight.

- Early recovery drinks restore fluids, electrolytes and glycogen. While fast carbohydrates are common, Palatinose™ offers a tailored option for athletes aiming to refill glycogen while maintaining fat utilisation or enhance rehydration.⁴
- **Recovery nutrition provides protein for muscle repair and adaptation.**
- **A bedtime drink with Palatinose™ can support sleep quality and overnight recovery.⁵**



GUT HEALTH & RESILIENCE

The gut microbiota is an important factor in athlete's health and performance. It contributes to gut barrier integrity, immune function and energy metabolism, making it particularly relevant for athletes under intense training conditions.^{7,8} Regular intake of prebiotics can support a resilient gut microbiota, gut barrier function and gastrointestinal well-being.

- **Chicory-derived inulin and oligofructose are well-established prebiotics⁹ that selectively nourish beneficial bacteria such as bifidobacteria.**



¹ Noakes et al (2026) *Endocrine Reviews* 47(2): 191–243.

² König et al ((2016) *Nutrients* 8(7): 390.

³ Hamilton et al (2025) *Eur J Sport Sci* 25:e70092.

⁴ Series of 5 publications by Japanese study group: Amano et al (2022) *Physiol Behav* 249:113770; Takada et al (2022) *Eur J Appl Physiol* 122(12):2615-2626; Otsuka et al (2021) *Int J Environ Res Public Health* 18 (11):5760; Amano et al (2019) *Exp Physiol* 104: 1494–1504; Amano et al (2021) *Eur J Nutr* 60, 4519–4529

⁵ Gaylor et al (2025) *Nutr Res* 134: 49-59.

⁶ Van der Heijden et al (2024) *Med Sci Sports Exerc* 56(8): 1467-1479.

⁷ O'Brien et al (2022) *Sports Med* 52(suppl 1): S110-S128.

⁸ Clark and Mach (2016) *J Intern Soc Sports Nutr* 13:43.

⁹ Prebiotics in accordance with the high standards of ISAPP, with scientific evidence from over 30 years of research and more than 250 clinical trials.

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