

# THE PERMEATE ADVANTAGE:

## FLAVOR FIRST: THE POWER OF LOW-MINERAL PERMEATE IN FORMULATIONS



Insights from Proliant Dairy's  
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### Why Low Minerals Are Critical for Clean Taste and Cost Efficiency

When it comes to creating food products that delight consumers, every ingredient plays a crucial role in achieving the perfect taste, texture, and nutritional profile. In today's competitive food manufacturing industry, there is a growing demand for cost-effective solutions that do not compromise on quality. Low-mineral whey permeates, like VersiLac® LM7 and LMS, have emerged as innovative ingredients that address these challenges—especially at a time when traditional demineralized whey supply has become increasingly scarce in the U.S.

### The Supply Gap: Domestically Produced Low-Mineral Whey

The primary driver behind Proliant Dairy's low-mineral line is to fill a critical gap in the U.S. market—namely, the dramatic decline in production of demineralized whey, which frequently renders it difficult or impossible for manufacturers to source. VersiLac LM7 and LMS provide a reliable, domestically produced alternative that eliminates dependency on shrinking imports or foreign sources.

Unlike traditional demineralized whey, which often involves complex filtration, ion-exchange, or electrodialysis processes—and generates byproducts that require disposal or additional handling—Proliant's unique production method yields no byproducts. This means cleaner processing, less waste, and a more sustainable footprint.

### The Impact of Mineral Content on Taste

Mineral content in whey permeates can significantly influence the flavor profile of food products. High mineral levels may impart a salty or metallic taste that could overpower the desired flavor in formulations. This interference is particularly problematic in delicate applications such as beverages, dairy alternatives, and confectionery, where a clean, balanced taste is essential.

Low-mineral whey permeates, like VersiLac LMS, offer a naturally sweeter profile and eliminate the off-notes caused by excessive minerals. This allows manufacturers to create products that appeal to modern consumers' demand for clean-label, delicious options. Whether it's a refreshing dairy-free beverage or a decadent chocolate bar, the neutral taste provided by low-mineral permeates ensures the flavor shines through.

*Low-mineral whey permeates are not only functional and flavorful but also cost-effective.*



### Enhanced Functionality for Versatile Applications

Low-mineral options like VersiLac LM7 and VersiLac LMS deliver superior functionality, ensuring excellent solubility, smooth blending, and efficient processing. This versatility makes low-mineral whey permeates ideal for a broad range of applications, including:

- Baked Goods: Achieve reduced sugar levels while maintaining great texture and flavor.
- Confectionery: Enhance sweetness naturally and create smoother, more consistent products.
- Savory Recipes: Reduce salt without sacrificing taste or quality.
- Dairy Alternatives: Deliver a mild, clean flavor that mimics traditional dairy.

### Cost Efficiency Without Compromise

Low-mineral whey permeates are not only functional and flavorful but also cost-effective. VersiLac LM7 and LMS provide manufacturers with an affordable alternative to more expensive options like lactose, whey powder, or nonfat dry milk. By replacing these costly ingredients, food producers can optimize their formulations without sacrificing quality.

For example:

- VersiLac LMS: Its naturally sweeter profile allows manufacturers to reduce added sugars, meeting the growing demand for health-conscious products while cutting ingredient costs.
- VersiLac LM7: With its reduced mineral load, it's an excellent choice for enhancing both taste and texture in a variety of recipes.

### Meeting Consumer and Industry Demands

Today's consumers are increasingly seeking health-conscious yet indulgent products, and low-mineral whey permeates provide the perfect solution. VersiLac LM7 and VersiLac LMS enable food manufacturers to reduce salt and sugar levels while maintaining exceptional taste, functionality, and cost efficiency. These versatile ingredients not only support innovative, on-trend formulations but also align with sustainable manufacturing practices, balancing profitability with environmental responsibility.



*Ready to elevate your formulations? Contact us today to learn more and request a sample.*

