

OligoSMART® Tapioca fiber syrup vs. Chicory root fiber syrup

A practical guide for product developers and food manufacturers

Introduction

Fiber enrichment has become a key objective in the development of nutrition bars, protein bars, meal replacements, healthy snacks, and functional foods.

For many years, chicory root fiber has been one of the most widely used soluble fiber ingredients. More recently, tapioca-based soluble fiber syrups such as OligoSMART® have gained attention as formulators seek improved digestive tolerance, better texture retention, cleaner flavor profiles, and alternative ingredient sourcing options. This guide compares the two approaches and provides a framework to help determine which solution best fits your application.

Executive summary

Many manufacturers evaluate OligoSMART® as an alternative to chicory root fiber syrups when they are looking to:

- ✓ Improve digestive tolerance
- ✓ Maintain softer texture throughout shelf life
- ✓ Reduce flavor masking requirements
- ✓ Achieve lighter product color
- ✓ Support a consumer-friendly ingredient story
- ✓ Diversify ingredient sourcing

For high-fiber bars and nutrition products, texture retention and digestive comfort are often the primary reasons for switching.

Side-by-side comparison

Attribute	Chicory root fiber syrup	OligoSMART® Tapioca fiber syrup
Source	Chicory root	Tapioca (Cassava)
Fiber Type	Inulin & FOS	Soluble tapioca fiber
Structure	Fructose-based	Glucose-based
Prebiotic Effect	Strong and established	Different fermentation profile
Digestive Tolerance	Can cause gas and bloating at higher levels	Often better tolerated
Flavor	Slight earthy notes and mild bitterness	Clean and neutral

Attribute	Chicory root fiber syrup	OligoSMART® Tapioca fiber syrup
Color	Can contribute darker color	Typically lighter
Texture	Good body and humectancy	Soft chew and strong binding
Shelf-Life Performance	May harden over time	Often maintains softness longer
Crystallization Resistance	Good	Excellent
Moisture Management	Good	Good with improved texture stability
Consumer Perception	Recognized fiber source	Familiar tapioca origin
Supply Chain	Regionally concentrated	Large global cassava supply chain

Why digestive tolerance matters

One of the most common reasons manufacturers evaluate alternatives to chicory root fiber is gastrointestinal tolerance.

Chicory-derived inulin and FOS are rapidly fermented by gut bacteria. While this contributes to their prebiotic effect, it can also result in:

- Gas
- Bloating
- Abdominal discomfort
- Consumer complaints at higher serving levels

OligoSMART® typically exhibits a more gradual fermentation profile, which many formulators report allows higher fiber loading before digestive discomfort becomes noticeable.

Typical customer comment

“Our bars contain 15g of fiber per serving. We need consumers to enjoy them without experiencing digestive discomfort.”

Texture retention throughout shelf life

Texture is often the single most important factor driving reformulation.

Many nutrition bars leave the production line with excellent texture but gradually become firmer during storage.

Manufacturers frequently report that OligoSMART® contributes:

- Softer texture
- Better chew retention
- Reduced hardening
- Improved flexibility
- Better cutting and processing performance

Typical customer comment

“Our bars need to stay soft and chewy for 12 months.”

Flavor and sensory performance

Flavor challenges can become more pronounced as fiber inclusion increases.

Chicory root fiber

May contribute:

- Earthy notes
- Root-like character
- Mild bitterness at higher usage levels

OligoSMART®

Typically provides:

- Clean taste
- Neutral flavor profile
- Mild sweetness contribution
- Reduced masking requirements

This makes OligoSMART® particularly attractive in:

- Vanilla bars
- Fruit-flavored bars
- Dairy-inspired products
- Protein bars

Appearance and color

Product appearance often influences purchasing decisions.

Compared with chicory root fiber syrups, OligoSMART® frequently enables:

- Lighter finished products
- Brighter appearance
- Cleaner visual profile

Particularly beneficial for:

- Cookies & Cream bars
- Vanilla bars
- White-coated products
- Dairy-inspired applications

Consumer-friendly ingredient story

Consumers increasingly scrutinize ingredient labels.

While chicory root fiber is well established, some consumers associate it with digestive discomfort due to its widespread use in high-fiber and keto products.

Tapioca offers a familiar and approachable ingredient story based on cassava root, aligning well with clean-label trends and consumer preferences for recognizable ingredients.

Supply chain considerations

Ingredient sourcing has become increasingly important.

Chicory root fiber

- Production concentrated in specific growing regions
- Supply can be influenced by crop conditions

OligoSMART®

- Supported by a large global cassava supply chain
- Attractive option for supply diversification
- Additional sourcing flexibility

Which fiber is right for your product?

Choose chicory root fiber when:

- ✓ Strong prebiotic positioning is a priority
- ✓ Established inulin messaging is important
- ✓ Existing formulations perform well
- ✓ Digestive tolerance is not a limiting factor

Choose OligoSMART® when:

- ✓ Digestive comfort is critical
- ✓ Texture retention matters
- ✓ You want a cleaner flavor profile
- ✓ Light product color is desired
- ✓ Consumer-friendly positioning is important
- ✓ Supply diversification is a goal

Typical reasons manufacturers switch

1. Improved digestive tolerance

“We want fewer consumer complaints about bloating and gas.”

2. Softer bars throughout shelf life

“We need our bars to stay chewy for 12 months.”

3. Cleaner flavor

“We want less flavor masking and a more neutral base.”

4. Lighter appearance

“We are developing vanilla and light-colored products.”

5. Consumer-friendly labeling

“We want a familiar ingredient story.”

6. Supply diversification

“We do not want to rely on a single fiber source.”

Final thoughts

Both chicory root fiber and OligoSMART® can play an important role in high-fiber product development. For manufacturers seeking improved digestive tolerance, softer texture retention, neutral flavor, and enhanced consumer acceptance, OligoSMART® offers a compelling alternative worth evaluating through formulation trials. As with any ingredient substitution, application-specific testing is recommended to confirm performance within your unique formulation and processing conditions.