



# The Re-Invention of Soybean Oil

## Healthier Oil with Functional Benefits and Solid Yields

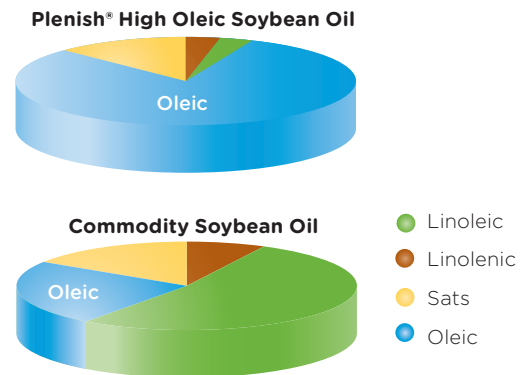


**PLENISH® HIGH OLEIC SOYBEAN OIL** offers consumer nutrition benefits with superior functionality to meet the industry's need for a high-volume, low-cost trans fat solution.

### NUTRITION BENEFITS

- 0g trans fat
- 20% less saturated fat than commodity soy oil and 75% less than palm oil
- High in heart-healthy monounsaturated fat (75% oleic), similar to olive oil

### TYPICAL FATTY ACID COMPOSITION

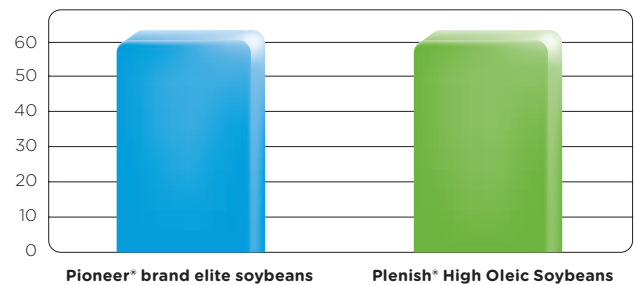


### SOLID YIELDS & AGRONOMICS FOR GROWERS

Plenish high oleic soybean varieties are developed using elite genetics and cutting-edge technologies.

- Pioneer is integrating the Plenish high oleic soybean trait into elite Pioneer® brand T Series genetics with diverse maturities and agronomic packages, suitable for a wide range of geographies.
- SCN and Phytophthora resistance, SDS tolerance included
- Consistent fatty acid profile with minimal fluctuation during atypical years of extreme environmental stress (e.g. cold, wet)

### PLENISH® HIGH OLEIC SOYBEAN YIELD COMPARISON



\* Source: Pioneer research plot yield data from 346 observations in Indiana and Ohio depicting an average yield on Plenish® high oleic soybean commercial varieties compared to average yield of Pioneer® brand elite soybean checks in 2011 - 2013.

### SUPERIOR STABILITY & FUNCTIONALITY FOR FOOD PREPARATION

- Increased fry life; 2-3x longer than conventional soybean oil
- Oxidative Stability Index (OSI 110°C) greater than 25 hours
- Extends product shelf life in snacks, baked goods and spray oil applications
- Increased heat stability reduces polymer build-up on frying and manufacturing equipment resulting in lower maintenance and cleaning costs
- Provides superior blending opportunities to optimize functionality, cost and flavor

### BIO-BASED INDUSTRIAL APPLICATIONS

- Vegetable oils have several advantages to petroleum-based oils including lubricity, lower volatility and a high flash point. However, a lack of oxidative stability can prevent their use in certain high temperature environments. High oleic soybean oil provides exceptional heat and oxidative stability and can be used in high temperature and extended use applications where conventional soybean oil is not an option.
- Applications may include:
  - Lubricant formulations
  - Dielectric fluids
  - Polyols, plastics, foams, adhesives
  - Source of oleic acid for oleochemical production

For more information visit [www.plenish.com](http://www.plenish.com)

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