



SUNFLOWER OIL

Delivers Superior Stability and Longer Shelf Life



Sunflower oil is one of the most versatile oils for today's food manufacturing needs.

It comes in mid oleic and high oleic formats; however, the **demand for high oleic sunflower oil is growing**, due to its superior stability and longer shelf life, compared to other oils.

All sunflower oil is non-GMO and has a neutral taste and high heat point making it ideal for a wide variety of food and beverage innovations. USA sunflowers are a sustainable and plentiful crop and once the oil is refined, it is easily transported, with no container or shipping delays.

With consumers demanding healthier foods and clean ingredient decks, it's not surprising that **75% of them want products made with sunflower oil.**¹

Now is the time to test sunflower oil in your product formulation and to make the switch!

John Sandbakken,
National Sunflower Association

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Why is Sunflower Oil a good choice for Food Manufacturing?

Consumers want more transparency about the ingredients in their products.

Sunflowers are considered a sustainable crop. They have deep tap roots that enrich and rejuvenate the soil and they require a lot less water than other crops. Sunflower crops decrease soil erosion which helps reduce greenhouse gas emissions and as a result, sunflower oil is a good choice for manufacturers who are looking for sustainable ingredients that match their products' mission.

Consumers want cleaner ingredient decks with healthy ingredients and 81% believe sunflower oil is a healthy oil.² Sunflower oil also meets an FDA claim that states high-oleic oils may reduce the risk of heart disease.³

Interest in products containing non-GMO oils continues to grow.

In 2020, **44% of consumers indicated that they were more likely to purchase a non-GMO oil**, compared with 41% in 2019.⁴



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Key Attributes of Sunflower Oil

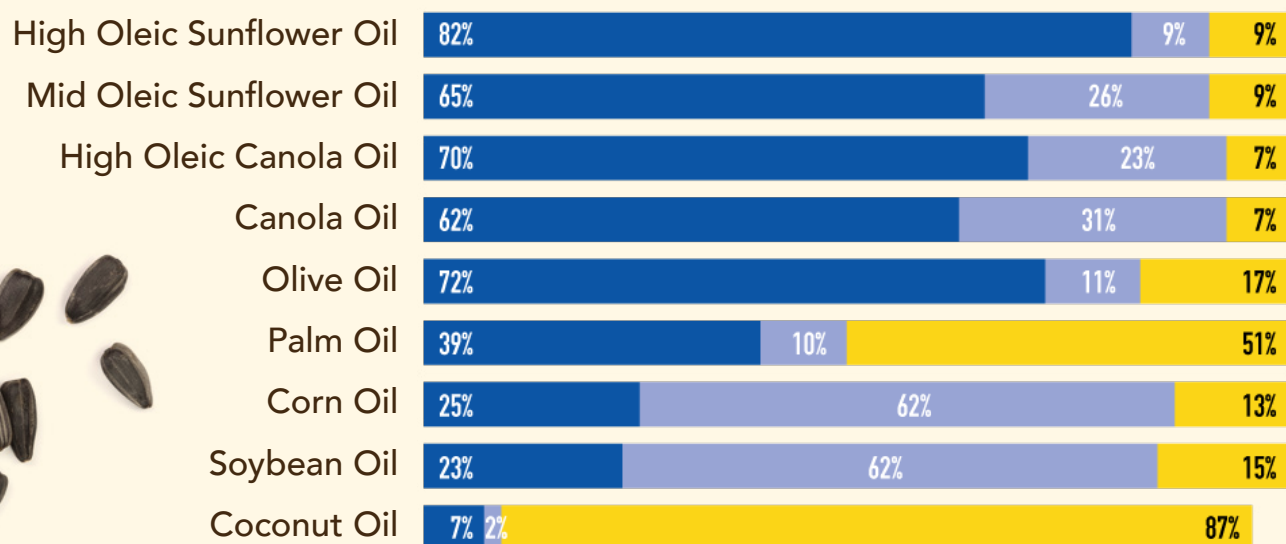
- Non-GMO
- Very stable due to only a trace of linolenic acid
- Extended shelf life – longer than other oils
- High smoke point (450°F)
- Excellent fry life
- Some of the highest levels of alpha-tocopherol
- Flavor neutral so true taste of food comes through
- Blends very well with other oils and solid fats
- Lends itself to products with claims around low/no/reduced allergens
- Kosher and Halal Certified

Comparison of Mid and High Oleic Sunflower oil

Sunflower oil is high in monounsaturated fats and has only a trace of linolenic fat (Omega 3). As a result, **sun oil is a very stable oil and has a significant shelf and fry life.** Since high oleic sunflower oil has more monounsaturated fatty acids than mid oleic, it has a longer shelf and fry life than mid oleic. Here is an overview of the fatty acid profile of USA mid and high oleic sunflower oil compared to other oils.



Fatty acid profile of sun oil vs. other oils



■ % Monounsaturated Fat ■ % Polyunsaturated Fat ■ % Saturated Fat

Successful Applications

Non-GMO Sunflower oil is ideal for use in a variety of products including **plant-based products, snacks, sauces, spreads, non-dairy beverages and gluten free and vegan bakery items.**

1

Plant-Based Protein Products

The plant-based food category is one of the fastest growing for new product development.

Sunflower oil is an excellent choice for plant-based product innovation, since it has a neutral flavor and can help with the texture and mouthfeel of these types of products.

WHAT'S TRENDING: Plant-based meat alternatives have evolved to include a wide variety of breakfast, lunch and dinner products. With many Americans working from home and with families looking for short cuts to meal prep, as well as foods that teens can make for themselves, different types of products are emerging.

Star Innovator

Award-winning **Crispy Chik'n Bites** were recently launched by **Sol Cuisine** and they have taken the plant-based nugget category by storm.

*"Many people have asked us what makes our Crispy Chik'n Bites so special," says **Dror Balshine**, President of Sol Cuisine. "We believe it is the flavor and the crispy texture that make this an award-winning product. As a long-time supporter of non-GMO sunflower oil, we use this type of oil in many of our product formulations, due to the extended shelf life, health advantages and neutral taste that allows the true flavors of our products to come through."*



2

Snack Food Products



In an October 2020 survey by the Hartman Group⁵, **35% of consumers said they were snacking more often than prior to the pandemic.** The overall volume of snack production has grown and is likely to continue to grow in the years ahead.

Sunflower oil is a good choice for savory snacks like chips, since it has a high heat point and long fry life. Using sun oil in crackers adds lubricity and a moisture barrier that helps prevent staling. For granola and protein snack bars sunflower oil contains antioxidants that help stabilize ingredients such as grains, seeds and nuts.

WHAT'S TRENDING: In the savory snack category, there is more variety in **snacks made with new grains** such as amaranth and new types of flour such as chickpea flour. As for sweet snacks, high protein bites and minis continue to grow in popularity and botanical flavors are starting to appear in these formulations.

Star Innovators

With consumers looking for better-for-you snacks, **The Original Taro Chip**, offers a new savory snack option. Produced by Mayon Fine Foods, these chips are vegan and gluten-free and contain no preservatives.

*"We used to use canola oil; however, we switched to sunflower oil, since it is non-GMO and has a neutral taste that allows the quality flavors in our chips to come through," says **Josie Granata**, Managing Partner of The Original Taro Chip. "Sunflower oil also provides a longer shelf life and gives our taro chips a tasty crunch."*

FreeYumm's bites, cookies, bars and crackers are made in an allergen-free bakery, with healthful ingredients that anyone can enjoy.

*"The ingredients we use meet a high standard for safety and quality to ensure our free-from products are always: Top 9 Allergen and Gluten-free, Certified Kosher, and Non-GMO Project Verified. The non-GMO sunflower oil we use is not just a healthy choice, it is a safe choice," says **Sarah Clarke**, FreeYumm founder and president.*



Sauces, Salad Dressings

Sales of sauces, dressings and marinades continue to grow, thanks to the introduction of new private label products, expansion of existing product line-ups and the emergence of products from smaller food entrepreneurs. If there is a desire to include a non-GMO oil in the formulation of sauces, dressings and marinades, sunflower oil is an excellent choice, as it blends well with other ingredients and will provide a long shelf life. Sun oil also has a neutral taste allowing the true flavors of the seasonings and other ingredients to come through.

WHAT'S TRENDING: Vegan sauces, salad dressings and marinades with clean ingredients are increasing in popularity. With the growing interest in ethnic cuisines, there is greater demand for ready-to-heat sauces that will boost the flavor of everyday meals for consumers, who are cooking at home and looking for easy prep ideas.

Star Innovators

Sauce Boss Kailey Gilchrist created **NONA Vegan Sauces** as a tribute to her late mother. These delicious plant-based, gluten free sauces bring the comfort and nourishment of a vegan Italian momma's recipes, right to consumers' kitchens.

*"We switched to sunflower seed oil, since we wanted to lower the cost of our oil and we needed a healthy oil that had a neutral flavor and a high heat point," says **Kailey Gilchrist** creator and owner of NONA Vegan Sauces.*

Based in the Okanagan Valley, **Little Creek Dressings** are dairy-free, animal-free and are made with a combination of unique artisan flavors.

*"We chose organic, non-GMO, high oleic sunflower oil for our dressings, since we want all the ingredients in our products to be as healthy as possible," says **Jubi Steinhauer**, Executive Director at Little Creek Dressings. "Sunflower oil's neutral taste is ideal for enhancing our fresh, authentic flavors and sun oil's long shelf life is another benefit for our products.*



Sweet and Savory Spreads

Sales of high-protein nut and seed-based spreads, including sunflower butter, continue to benefit from consumers rising interest in high protein foods.⁶ Savory dips and spreads are engrained in many consumers' diets and as a result, sales of new flavors and new types of spreads continue to grow.

Sunflower oil is an excellent choice for sweet or savory dips and spreads since it provides a consistent consumer-pleasing texture and viscosity. The inherent stability of sunflower oil along with sunflower oil's ability to support clean and clear labels make it a great solution for these applications.

WHAT'S TRENDING: Vegan butters, nut and seed-based spreads and creamy non-dairy cheese products have not only brought a solution to vegan households, but these products have brought new innovation to the spread category. Many non-vegans are purchasing these dairy-free products due to their delicious taste and mouthfeel, and the fact that they contain no cholesterol.

Star Innovator

Award winning **Nuts for Butter** is a dairy-free, gluten-free, soy-free spread that has a delicious buttery flavor. Made with certified organic and Fairtrade cashews and sunflower oil, this premium product is ideal for vegans and all consumers, who are looking for a plant-based option to butter.

"We use high oleic sunflower oil to help create a rich, creamy and smooth mouthfeel," says Margaret Coons, Founder and CEO. "The end result is a vegan butter that's perfect for spreading, cooking, melting and baking."



6

Non-dairy Beverages

Sales of non-dairy milk products continue to grow with oat-based beverage sales surging. Innovation in non-dairy beverages is likely to continue, as consumers adopt more plant-based eating habits. Using sunflower oil in beverage emulsions can support building body and mouthfeel and can also carry soluble vitamins for nutrition.

WHAT'S TRENDING: While oat milk is the current non-dairy star, **nut-based beverages** continue to have strong sales in both the shelf stable and refrigerated categories. Beverages made from quinoa and a wider variety of pea proteins are emerging, as well as some plant-based and real milk combinations.

Star Innovator

Earth's Own is a bold plant-based brand changing the way consumers eat for the better. They pioneered plant-based beverages over twenty years ago and have continued to lead the way with their highly successful line of Oat beverages. Earth's Own Oat is incredibly rich, creamy and frothy, elevating the flavor of coffee, smoothies and other hot beverages.

*"We chose to use sunflower oil instead of canola oil for our Oat beverage, as it's non-GMO and rich in Vitamin E," says **Brittany Hull**, Earth's Own VP of Marketing. "Sunflower oil also helps to create the delicious, smooth texture."*



7 Bakery

A variety of fats and oils are used in commercial bakery products. Sunflower oil is often used to help to reduce and replace saturated fat in bakery products. Sun oil blends well with other fats and oils and performs well in artisan breads, muffins and sweet breads.

WHAT'S TRENDING: While many Americans were busy baking at home this past year, **gluten-free, dairy and egg free bakery items** have pushed their way to the forefront of innovation. Many of these items are being purchased by Americans who are looking for healthful indulgences.

Star Innovator

Sweets from the Earth is a line of original recipe, dairy and egg free baked goods that use all-natural, Kosher, 100% plant-based, GMO-free ingredients. This company operates two bakeries — one that is peanut and nut-free and the other that is wheat and gluten free and it makes a wide variety of cakes and cheesecakes, squares and bars, cookies, muffins and even frozen cookie dough that consumers can bake at home.

*"Since we are using non-GMO ingredients in all of our products, non-GMO sunflower oil is the best option," says **Ilana Kadonoff**, pastry chef and company founder. "We also just launched some new sugar free, keto and paleo desserts and snacks that contain sunflower lecithin, which is ideal for consumers with special dietary needs."*

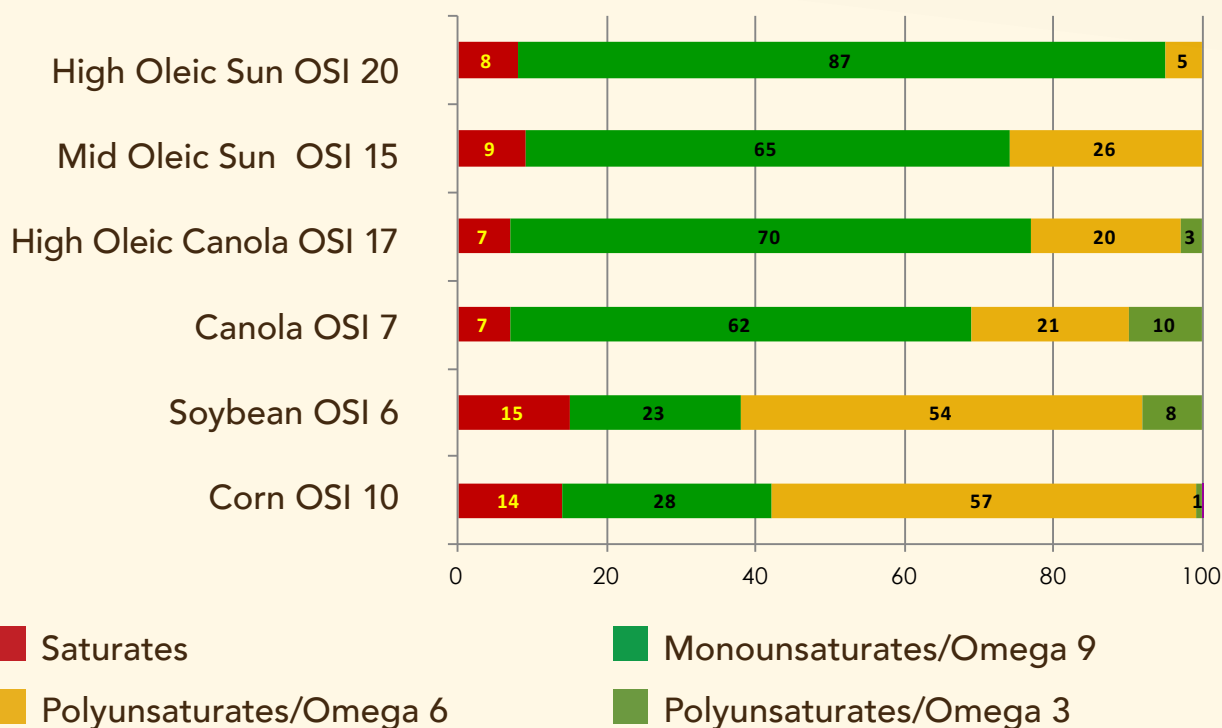


Fried Foods

Sunflower oil is a premium fry oil in both foodservice and food manufacturing settings, due to its high smoke point (450F) and its high monounsaturated fat content. Sunflower oil has a longer fry life than other oils.⁷ Foods fried in sunflower oil often absorb less oil and as a result are golden in color and have a nice light taste.⁸



Oxidative Stability Index for Various Oils



OSI measures the length of time (in hours) before a rapid acceleration of oxidation occurs (i.e. High Oleic Sunflower Oil will last 20 hrs vs. High Oleic Canola will last 17 hrs)



Summary

USA sunflower oil is plentiful and is available in JIBs, pails and totes. **Contact one of these suppliers** to obtain a sample and test non-GMO sunflower oil in your product formulations.

Sunflower Oil Suppliers

AAK

510-231-6423

Adams Vegetable Oils Inc.

530-668-2005

ADM

800-637-5843

Cargill Inc.

701-282-1632

Colorado Mills, LLC

719-336-8452

Columbus Vegetable Oils

847-257-8935

Healthy Food Ingredients


844-275-3443

Oilseeds International Ltd.

415-956-7251

Stratas Foods

901-387-2223



References

1. Omnibus survey hosted on the Maru/Blue Research Forum on October 26, 2021.
2. Omnibus survey conducted by Maru/Blue Research Forum on October 30, 2019.
3. FDA statement: Edible oils must contain at least 70% oleic acid and need to be substituted for saturated fats. All high oleic sunflower oil and some mid oleic sunflower oil qualify for this claim.
4. Cargill annual FATitudes™ survey conducted online with 560 primary grocery shoppers in the U.S. in May 2020.
5. The Hartman Group, The 2020 Snacking Report, October 2020
6. Euromonitor International – Sweet Spreads in Canada Report, November, 2020
7. Fry study conducted by Cargill, spring 2009
8. Rasul, Nabil. (2010) Effect of Deep Frying of Some Foods in Sunflower Oil -Physical, Chemical and Nutritional Properties at Rejection Point.



For more information visit the National Sunflower Association at sunflowerusa.com.