COAST

FAMILY OWNED SINCE 1922

BACK TO FLAVOR, BACK TO TALLOW

The Rise of Natural Fats in the Modern Kitchen

Executive Summary

Beef tallow is a time-honored, naturally occurring cooking fat that is regaining popularity in both food service and consumer kitchens. Its high smoke point, extended fry life, and rich nutritional profile offer a practical and flavorful alternative to highly processed seed oils. Beef tallow, which is sourced primarily from suet (fat around the kidneys), has been used for millennia across cultures for cooking, baking, preserving, and even non-food applications like soap and candle making.

Historically displaced by industrial seed oils through aggressive marketing and misinformation, beef tallow is now embraced by chefs, consumers, and wellness advocates for its clean-label appeal and performance in high-heat applications. Unlike synthetic alternatives, it contains zero artificial trans fats and is naturally rich in vitamins A, D, E, and K and beneficial fatty acids.

Beef tallow's durability and long shelf life translate into reduced waste, less frequent fryer changes, and lower overall operating costs. It delivers crispier, less greasy food with enhanced flavor complexity, making it a functional fat and a culinary upgrade.

As interest in sustainable, traditional, and minimally processed ingredients grows, beef tallow aligns with consumer demand for authenticity and environmental responsibility. From fryers to bakeries to biodiesel production, tallow represents a return to a healthier, more efficient, and flavor-forward approach to fat.

What is Beef Tallow?

Beef tallow is fat rendered from beef. This fat can come from trim or small pieces of fat and meat leftover from butchering, but it is commonly derived from the fat around the kidneys, called suet. Beef tallow has a high smoke point of around 400 degrees Fahrenheit, making it ideal for food service applications such as deep frying, sauteing, baking, and icing. In non-food applications, beef tallow is used in soaps, cosmetics, candles, and biodiesel.

Five Facts About Beef Tallow:

- Beef tallow is solid at room temperature
- Offers complexity to cooked food dishes
- Is high in fat-soluble vitamins A, D, E & K
- It is a naturally occurring fat
- Often leads to cost savings with extended fry life

History of Beef Tallow

Beef tallow has been used throughout human civilization for food, candles/lighting, soap, moisturizer, waterproofing leather-made goods, and much more. Archaeological evidence dating back to at least the Bronze Age (circa 3300 B.C.), from the regions of Mesopotamia and the Indus Valley, indicates that early cooks rendered animal fat over open fires, using tallow not only to prepare meals but also to preserve food for long journeys and fuel oil lamps. In ancient Britain, tallow was a staple in hearths, helping communities survive cold winters with hearty meals and preserved meats.

Tallow remained a staple cooking fat for over 5,000 years—until the late 19th and early 20th centuries, when industrial seed oils like cottonseed and soybean oil were introduced and aggressively marketed as cheaper, more 'modern' alternatives. The popularity of these new seed-based oils and shortenings was mainly due to marketing campaigns supporting the health benefits of seed oil-based products. However, this was done irresponsibly and with insufficient scientific evidence for its health claims. In addition, the seed oil and shortening manufacturers funded the Heart Association of America to push and emphasize their marketing agenda.

In the early 1990s, most Quick Service Restaurants (QSR) and fast-food establishments discontinued the use of tallow, mainly because of misinformation. In June 2018, the U.S. Food and Drug Administration (FDA) banned trans fats (tallow contains zero trans fats) because of the rising rate of heart disease. Food consumers who were led to believe that seed oils are "healthy" have recently discovered that these oils are among the unhealthiest products we can consume. Since then, as awareness has grown in consumers and more people strive to eat less ultra-processed foods, the shift toward naturally occurring fats continues to climb.

Manufacturing Beef Tallow

Manufacturing beef tallow is quite simple. Tallow is made by taking suet (kidney fat) and trim and running it through a grinder. The ground fat is then heated and sent through a centrifuge, separating any remaining lean tissue and the now liquid fat. This process produces tallow in its simplest form. Tallow can require further refining for many food service operations, such as use in a deep-fat fryer. This further refinement can be achieved by taking the rendered tallow, heating it, and running it through a distillation column where volatile compounds and impurities are turned into vapors and removed. What remains is refined, deodorized tallow.

Quality & Performance

Beef tallow is a superior cooking fat for many reasons: its high smoke point, durability with high-heat cooking (leading to longer fry-life), superior flavor profile, less greasy texture, versatility for many cooking applications, and long shelf life in proper dry storage conditions.

Beef tallow's smoke point is around 400°F (204°C), which is ideal for high-heat applications like frying and roasting. This high smoke point means it breaks down less during cooking, producing fewer free radicals—unstable molecules linked to inflammation, cell damage, cancer, and cardiovascular disease. In contrast, many commonly used seed oils, such as canola or soybean

oil, have lower smoke points and are more prone to oxidation at high temperatures, increasing the likelihood of free radical formation and the release of harmful compounds into food and air.

Because of beef tallow's naturally high smoke point, it is an excellent choice for all-around general-purpose cooking fat. It excels in cooking methods such as deep frying, sauteing, BBQ, roasting, and baking applications.

Because the fatty acid makeup of tallow is so durable, it lasts significantly longer when used for deep-fat frying. Because beef tallow holds up better under high heat, it lasts longer in the fryer—known as having a longer “fry life.” This means it doesn’t need to be changed as often, leading to cost savings by reducing waste, labor, and the time spent cleaning equipment and ventilation systems. Even more important, it delivers a better end result: food absorbs less oil, comes out crisp instead of greasy, and has a richer, more complex flavor.

Beef tallow has a guaranteed shelf life of nine months but can easily last up to a year or longer if stored in proper dry storage conditions. Beef tallow does not require refrigeration and should never be frozen. Foodservice operators should store beef tallow in a dry storage area, 75 degrees or less, and out of direct sunlight.

Nutrition Benefits

Beef tallow is a nutrient-rich, traditional fat source that supports overall health through its unique blend of beneficial lipids and vitamins.

Healthy Fats

Beef tallow is rich in **monounsaturated** and **saturated fats**, both essential for:

- **Hormone production**
- **Cell membrane integrity**
- **Energy storage and insulation**

Fat-Soluble Vitamins

Beef tallow provides key fat-soluble vitamins that are critical for multiple bodily functions:

- **Vitamin A**
  Supports immune function, eye health, and skin regeneration.
- **Vitamin D**
  Vital for strong bones, teeth, and a healthy immune system.
- **Vitamin E**
  Acts as an antioxidant, supports skin, eyes, blood circulation, and reproductive health.
- **Vitamin K**
  Necessary for blood clotting, cognitive function, and may reduce the risk of heart disease.

Heart & Brain Health

- **Omega-3 & Omega-6 fatty acids**
  Promote cardiovascular and brain health, supporting mood regulation and reducing inflammation.

Anti-inflammatory Fatty Acids

- **Linoleic Acid**
  Offers anti-inflammatory benefits and may support metabolic health.
- **Oleic Acid**
  Known for heart health benefits and reducing markers of inflammation.

Consumers are becoming increasingly aware of the health implications of seed oils, opting instead for more natural, minimally processed alternatives like tallow. Animal fats like tallow offer superior flavor and performance benefits in cooking, such as higher smoke points and better texture in fried foods.
–Greg Hozinsky, Corporate Chef at Coast Packing Company

Plant-Based & Allergen Sensitive Consumers

Foodservice operators need to understand their consumers' needs, preferences, and safety concerns, such as dietary restrictions or lifestyle. Cross-contamination is a critical aspect of food safety. If a fryer is used to prepare both vegetarian and non-vegetarian items, the resulting product is no longer truly vegetarian. Similarly, just as operators would avoid using the same fryer for individuals with nut or gluten allergies, the same care should be applied for those seeking vegan or animal-product-free options. To properly accommodate guests with dietary restrictions, operators should use dedicated fryers to eliminate the risk of cross-contamination.

Sustainability

Sustainability is an ever-growing topic and a very important mission for many operators collectively striving to achieve a lower carbon footprint.

Beef tallow is a byproduct of the cattle industry. Production of beef tallow utilizes the ideal on-nose-to-tail cooking, using trim and suet to produce this naturally occurring fat. Byproducts left over from the manufacturing of tallow are then again used in both edible and non-edible forms, furthering the chain of sustainability.

When tallow is used in food service, the product can be recycled for renewable diesel, with its renewability score amongst the highest for the category of recycled oils and fats. Beef tallow is biodegradable, can naturally be broken down over time, and is environmentally friendly.

Consumer Trends: Embracing Natural Fats

Recent consumer research indicates a significant shift away from seed oils toward natural animal fats like beef tallow. A 2024 survey conducted by Coast Packing Company revealed that consumers are increasingly aware of the health implications associated with seed oils and are opting for more natural, minimally processed alternatives. This trend is particularly pronounced among younger demographics, prioritizing clean-label ingredients and traditional cooking methods.

Of the 2,008 adults surveyed across the contiguous U.S.:

- 20% reported they no longer use seed oils in their cooking.
- Among those who stopped, 39% cited health concerns as the primary reason.
- Other key drivers included the highly processed nature of seed oils (33%), performance issues when cooking (26%), and preference for better flavor (24%).
- Additionally, 13% of respondents indicated they had actively switched to animal fats like tallow or lard.

This movement reflects a broader consumer trend toward clean-label, minimally processed ingredients, and a return to traditional cooking methods.

The findings echo a parallel 2023 Coast survey, in which 50% of respondents praised animal fats for their taste and versatility in the kitchen.

This movement isn't just a niche trend—it reflects a significant cultural and culinary shift toward authenticity, health, and simplicity, with animal fats like beef tallow leading the way.

Market Trends: An Upward Trajectory

The global market for edible animal fats—including beef tallow—is on a steady upward trajectory, reflecting changing consumer preferences and broader food industry trends.

Valued at US$ 54.1 billion in 2023, the animal fat market is projected to reach US$ 78.0 billion by 2032, growing at a compound annual growth rate (CAGR) of 4.14% during 2024–2032. Key drivers of this growth include the rising global population, increased meat consumption, advancements in food processing technologies, and growing consumer demand for natural, organic, and minimally processed ingredients. Heightened awareness of the health benefits of traditional animal fats—including tallow—has further fueled interest, particularly as more consumers seek clean-label, sustainable, and flavor-forward alternatives to industrial seed oils.

> *We're seeing a shift in preference from highly processed to minimally processed edible oil shortenings, taking us back to basics. Lard and beef tallow avoid additives like n-hexane and hydrogenation, aligning with today's demand for clean, natural cooking.*
> – Eric R. Gustafson, Chief Executive Officer, Coast Packing Company

Facts Versus Myth

FACT: Beef tallow naturally contains zero artificial trans fats. Trans fats are a very dangerous fat associated with high levels of cardiovascular disease. Trans fats have been banned since 2018 by the U.S. FDA.

MYTH: Tallow is merely a fad. Although recent dietary movements like keto and paleo emphasize the use of tallow and animal fats, and social media influencers advocate for tallow in cooking and cosmetics, it has actually been used for thousands of years for these same applications. For more than 75 years, tallow has often been subject to demonization as a marketing ploy to increase the use of seed oils benefiting other industries.

MYTH: Deodorized tallow is chemically made and bleached. Tallow is available at different intensity levels; it can be simply rendered for full-flavor applications and can also be partially or even fully deodorized for those seeking a more natural flavor profile. But that doesn't mean it's chemically made. Modern techniques for producing a deodorized beef tallow product are done through a physical process of heat and pressure to remove impurities.

MYTH: Beef tallow is more expensive than other oils. In reality, beef tallow is packaged differently than most cooking oils used in food service. For example, some oils come in 35-pound jugs, which require nearly one and a half of these containers to fill a standard 50-pound deep fryer. In contrast, tallow is typically sold in 50-pound cubes meant for one cube to fill a 50-pound fryer. The price per pound is often comparable and competitive with many oils, such as soybean and canola oil. However, the "fry life" of tallow in many cases will substantially surpass that of commodity oils by 50% or more, depending on what is being fried and the best practices being followed.

MYTH: Tallow is harder to use. Beef tallow needs to be “packed” into a fryer to ensure safety. This simple process only takes a few minutes and only needs to be done when old cooking fat is discarded, and new fat is required to fill the fryer. However, due to beef tallow’s natural durability, daily cleaning can be reduced significantly. When fat is heated for long periods, such as in a deep fryer, it is prone to a type of degradation called polymerization. Polymerization is when small molecules combine to make larger molecules, resulting in a hardened, thick layer of fat. When polymerization occurs, it requires many labor hours spent scrubbing out deep fryers, sauté pans, hood filters and ventilation equipment. Beef tallow is far less susceptible to polymerization than oils, saving time cleaning and scrubbing out these types of equipment.

Conclusion

Beef tallow is more than just a cooking fat—it's a time-tested, nutrient-rich ingredient reemerging as a smart, sustainable, and flavorful alternative to heavily processed seed oils. With a naturally high smoke point, extended fry life, and lower susceptibility to breakdown, tallow offers superior performance in foodservice applications while delivering crisp, less greasy food and complex flavor.

Once displaced by industrial oils through decades of marketing and misinformation, beef tallow is being embraced again by chefs, consumers, and wellness advocates who value clean-label,

minimally processed ingredients. Backed by a long history of use across cultures and now aligned with modern demands for health, transparency, and sustainability, tallow is reclaiming its place in the kitchen.

The resurgence of beef tallow reflects a larger shift in consumer preferences toward traditional fats that are better for the body, better for the planet, and better for the plate. From economic advantages in commercial kitchens to environmental benefits through reduced waste and renewable uses, beef tallow stands out as a functional, flavorful fat for the future.


BEEF TALLOW:
THE GREEN & SUSTAINABLE SOLUTION
COAST
FAMILY OWNED SINCE 1922
EVERY POUND of soybean oil used
instead of Beef Tallow, WASTES
more than 1,100 gallons of water
Saving Water
CONSERVING NATURAL RESOURCES
USING TALLOW FOR COOKING MEANS LESS FOOD CROP DISPLACEMENT:
You would need over 1,000,000 acres of US cropland to produce the equivalent amount of soy oil
Only about 45% of a cow at slaughter becomes beef
About 12% of the cow is fat trim, which becomes tallow
33.2 Million Cattle Slaughtered in 2023
Producing approx. ½ billion lb of tallow
THIS MORE TRADITIONAL WAY OF EATING NOT ONLY REDUCES WASTE,
But is more ethical and gives greater respect to the animal itself
Ethical Eating
NOSE TO TAIL
BETTER FOR THE ENVIRONMENT
ONCE IT'S NO LONGER useful for cooking, tallow can be RECYCLED FOR BIODIESEL
biodiesel from tallow has a higher cetane number than plant oil
This means CLEANER & MORE EFFICIENT burning in diesel engines
35 lb container of oil (JIB) includes more than 10 oz plastic jug (carboy)
50 lb CUBE of tallow contains only a 1.5 oz plastic liner
Reduced Plastic Waste
WWW.COASTPACKING.COM

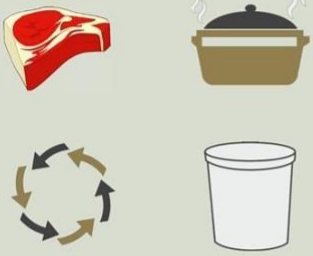
DID YOU KNOW?

LARD & BEEF TALLOW
ARE **MINIMALLY PROCESSED**

The natural makeup of both lard and beef tallow promotes health. **Neither contains the artificial trans fats found in hydrogenated shortenings.** Both are naturally stable and solid at room temperature. And they're minimally processed – virtually nothing is added, and what's already there (plenty of monosaturates) is good for you.

LARD & TALLOW RENDERING

1. GRIND
2. STEAM
3. CENTRIFUGE
4. FINISHED



VS

VEGETABLE OIL REFINING

1. GRIND
2. EXTRACTION
   N-Hexane added
3. REFINING
   Sodium Hydroxide & Sodium Carbonate added
4. DEGUMMING
5. BLEACHING
6. DEODORIZING
   2- & 3-MCPD esters and Glycidyl esters (GE) are formed
7. FINISHED

WARNING:
N-HEXANE causes developmental toxicity and male and female reproductive toxicity.

2- & 3-MCPD esters and **GE** are process contaminants formed during the refining process.