Soybeans and Soybean Oil Sustainability: U.S. Compared to Argentina and Brazil

Global demand for soybean oil is growing, and with businesses, states and countries adopting sustainable policies and committing to building a better environment, that demand is only going to continue.

Consumers also increasingly expect the products they buy to come from sustainable sources and soybean customers are passing those demands on to producers.

This is where U.S. Soy continues to meet the expectations of its customers, with U.S. soybean oil having the lowest carbon footprint compared with other origins of soybean oil.

U.S. Soy farmers are industry leaders in implementing innovative solutions that ensure they can produce more with fewer resources. Their farming practices are helping to reduce the carbon footprint of their crops as part of an ongoing commitment to sustainability. This allows our customers to produce food, feed, energy and other products that support a healthy society while also preserving the environment for future generations.

Between 1982 and 2020, U.S. forestland increased by 2.1 million hectares while cropland decreased by 21.3 million hectares.

Since 1980, U.S. Soy farmers have made sustainability improvements:

- **48%** land use efficiency improvement per bushel
- **46%** energy use efficiency improvement per bushel
- **130%** production increase
- **34%** soil erosion improvement per acre
- **43%** greenhouse gas emissions efficiency per bushel

U.S. soybean oil offers a sustainable and more environmentally friendly solution to the growing demand, particularly when compared to soybean oils from other origins, such as Argentina and Brazil.

The U.S. Soybean Export Council, with support from the soy checkoff, partnered with Blonk Consultants, a leading international expert in food system sustainability, to use the Agri-footprint database to evaluate the carbon footprint of soybeans and soybean oil sourced from different countries. The Agri-footprint database is based on Life Cycle Assessment (LCA) methodology, which considers the Land Use Change (LUC) impact according to the Product Environmental Footprint standard used by the European Commission to calculate the environmental footprint of a specific product. The Agri-footprint database is used to calculate the carbon footprint for a wide range of country-crop combinations.
The carbon footprint of U.S. Soy, including LUC, is significantly lower than both soybean oil and soybeans from Argentina and Brazil. U.S. soybean oil is responsible for just 1.06 kilograms of CO2 per kilogram of product. The same output in Argentina produces 9.8 kilograms of CO2 and Brazil 9.98 kilograms of CO2 per kilogram of product. The carbon footprint of U.S. soybeans is also significantly lower, at 0.3 kilograms per product vs. 4.3 kilograms for soybeans from Argentina and 4.4 kilograms for soybeans from Brazil.

With U.S. soybean farmers adopting and implementing innovative practices and firmly committed to producing crops sustainably, it’s clear that U.S. soybeans and soybean oil have an advantage when compared to products from other origins. U.S. soybean farmers are making sure that the carbon footprint of U.S. Soy not only remains low, but that we also continue to develop practices that further minimize our emissions today and in the future.