



## SUPPORTING SUSTAINABILITY THROUGH OIL AND PROTEIN CHOICE

Today, most consumers consider food sustainability to be a topic of high importance. According to recent research, 83% of consumers say they're familiar with the term "sustainability"<sup>1</sup>, and 63% say knowing whether a product is sustainable will greatly impact their purchase decision<sup>2</sup>. However, there appears to be a gap between the stated importance and consumers' ability to make decisions that support sustainability as only 21% of consumers can name a sustainable product and only 19% can name a sustainable brand<sup>1</sup>.

While consumers struggle to identify the sustainable food items in their pantry, their definition of sustainability consistently circles around factors such as conservation of resources and minimizing environmental impact, with fewer consumers being concerned about topics like feeding a growing population, affordable food supply or conservation of farmland.

Much of the food industry's early sustainability efforts have focused on using fewer resources, reducing waste and energy consumption in the process of manufacturing foods. Today, most food businesses address the challenge of feeding a growing population, but fewer understand the pressure on land and water to meet these challenges.



### WHAT'S AT STAKE?

Maintaining our farmland, optimizing its output and reducing the inputs necessary to grow food are critical to a sustainable food system as the amount of available farmland is rapidly shrinking. Between 1992 and 2012, the U.S. converted almost 31 million acres of agricultural land to other uses; that's roughly equivalent to the land mass of New York state<sup>3</sup>. A shift of this magnitude puts enormous pressure on our food system to be more efficient. Additionally, while the planet is largely covered by water, only three percent of the water on earth is freshwater. Two-thirds of that freshwater is locked in glaciers and polar ice caps, leaving only one percent of the water on earth available for human consumption and irrigation, putting into perspective the need for efficient use of this limited resource<sup>4</sup>.

One area that may provide a new opportunity to strengthen sustainability commitment is rethinking ingredient selection.

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### OILS AND PROTEINS THAT SUPPORT A STRONG SUSTAINABILITY STORY

Production relative to necessary inputs is an excellent way to measure crop sustainability. Among protein sources, soybeans are the most efficient source of protein production with 350 pounds of edible protein per acre, approximately 75% more than corn and other legumes, and 600% more than meat<sup>5</sup>.

Similarly, soybeans require 62% less water than eggs, 72% less than nuts and 84% less than beef per tonne of production. Further, only 10% of soybean acreage requires irrigation, compared to as much as 27% for dry beans and 37% for peanuts<sup>5</sup>.

From an oil output perspective, canola at 454 tonnes per acre, sunflower at 202, and soybean at 139 are the most efficient sources of oil production<sup>6</sup>; though it's important to note that sunflower and canola's limited geographic footprint add significant transportation mileage to their use. As soybean acreage outnumbers other oilseeds by 4 to 1, the maximum distance from point of production to use for soybeans is approximately 1,260 miles, or 25% less than canola or sunflowers<sup>7</sup>.

The recognition of soil health is a core facet of sustainability that is quickly gaining traction with food companies. Conservation tillage practices like cover cropping and no or low tillage help protect the soil's ability to retain water, positively impact water and soil health, and reduce greenhouse gases<sup>8</sup>. On a percentage basis, canola, corn and soybeans are leaders in acres under conservation tillage; though when total acreage is considered, soybeans are the clear leader in conservation tillage use<sup>9</sup>.

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## TAKE ACTION

The United Soybean Board is dedicated to supporting U.S. farmers' efforts to sustainably meet the demands of a growing food marketplace. To learn more about the sustainability of various oilseeds and protein sources and what U.S. grown soybean oil and protein can do for your business, contact John Jansen at [jjansen@unitedsoybean.org](mailto:jjansen@unitedsoybean.org).



- 1) Hartman Group Capabilities Presentation, 2019, page 6
- 2) Int'l Food Information Council, "2019 Food and Health Survey", page 53
- 3) American Farmland Trust
- 4) U.S. Geological Survey. (n.d.). All of Earth's Water in a single sphere!
- 5) USDA; FAO/WHO/UNICEF Protein Advisory Group 2004
- 6) Calculation from known oil content of crops and production stats from USDA Quickstats Database.
- 7) Qualisoy.com; calculations based on counties with production to furthest point in continental US, per USDA NASS database.
- 8) UW Extension, Fox Demo Farms.
- 9) USDA NCRS