



**U.S. SOY**

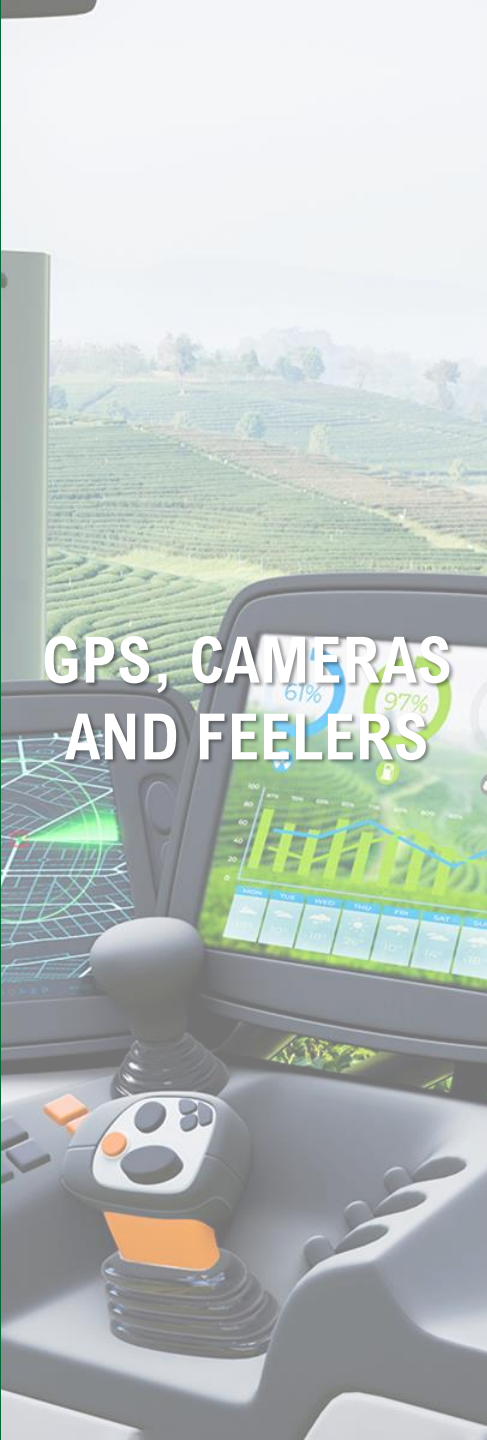
# U.S. Soy Sustainability

Abby Rinne – Director of Sustainability

**SUSTAINABLE**  
 **U.S. SOY**



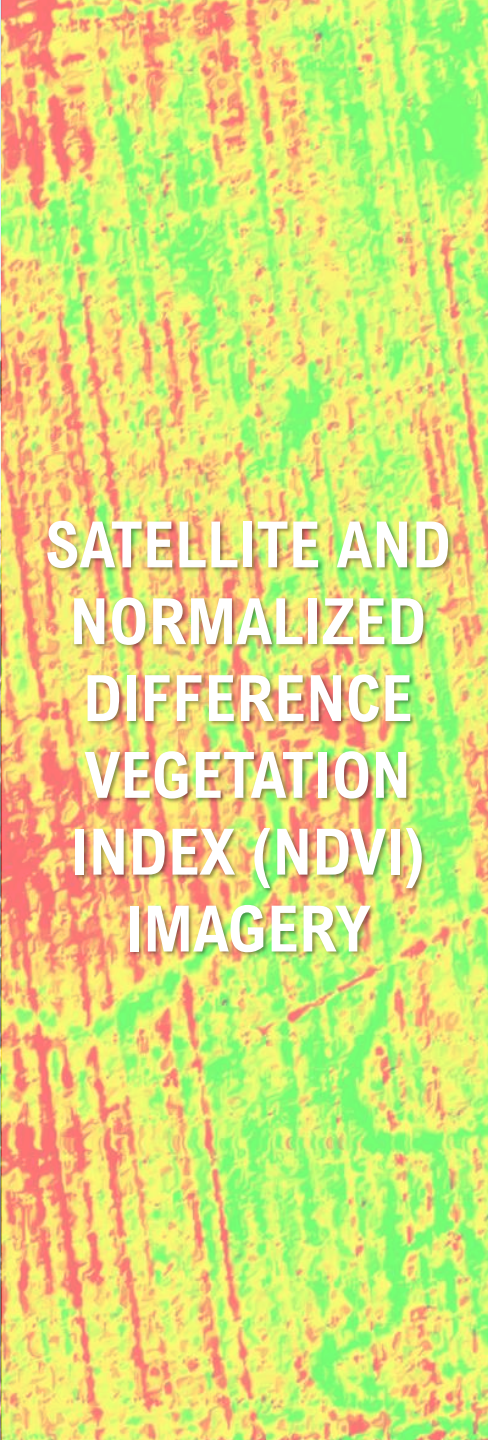




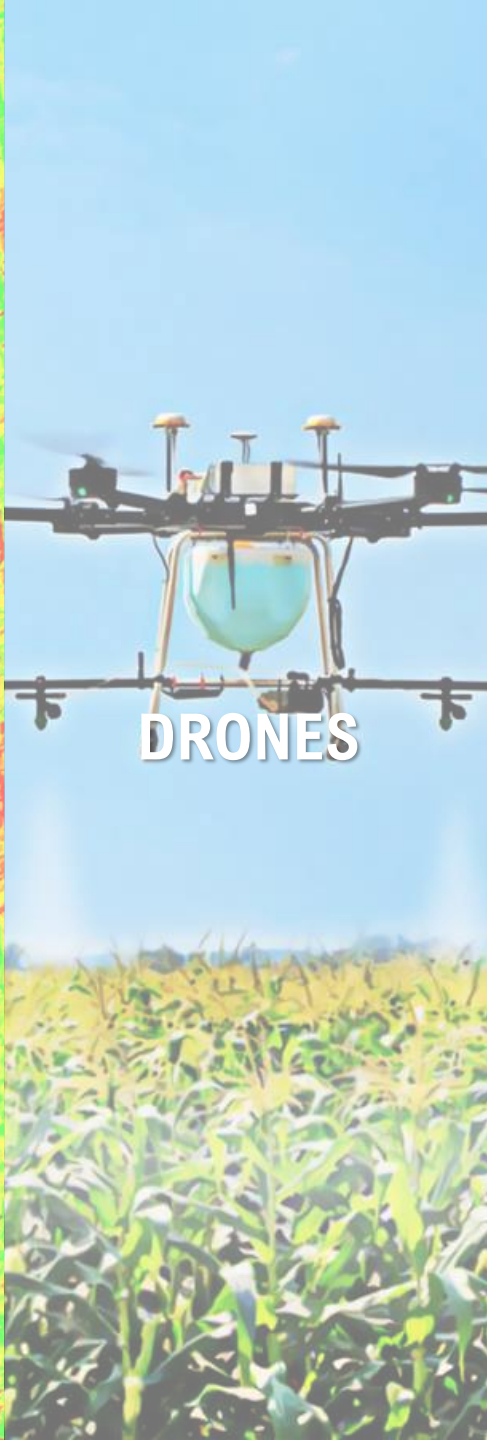
**GPS, CAMERAS  
AND FEELERS**



**VARIABLE RATE  
SEEDING AND  
APPLICATION  
TECHNOLOGY**



**SATELLITE AND  
NORMALIZED  
DIFFERENCE  
VEGETATION  
INDEX (NDVI)  
IMAGERY**



**DRONES**



**IRRIGATION  
SENSORS**

# 95%

## of U.S. farms are family farms

*“Operating a multigenerational farm compels me to always take a long look at how I manage my operation. My farm has to be managed for profit today without losing sight of the fact that future generations will depend on it for their livelihood as well. Because of my strong family legacy, my customers can expect consistency and a partner that will be here doing business for generations to come.”*



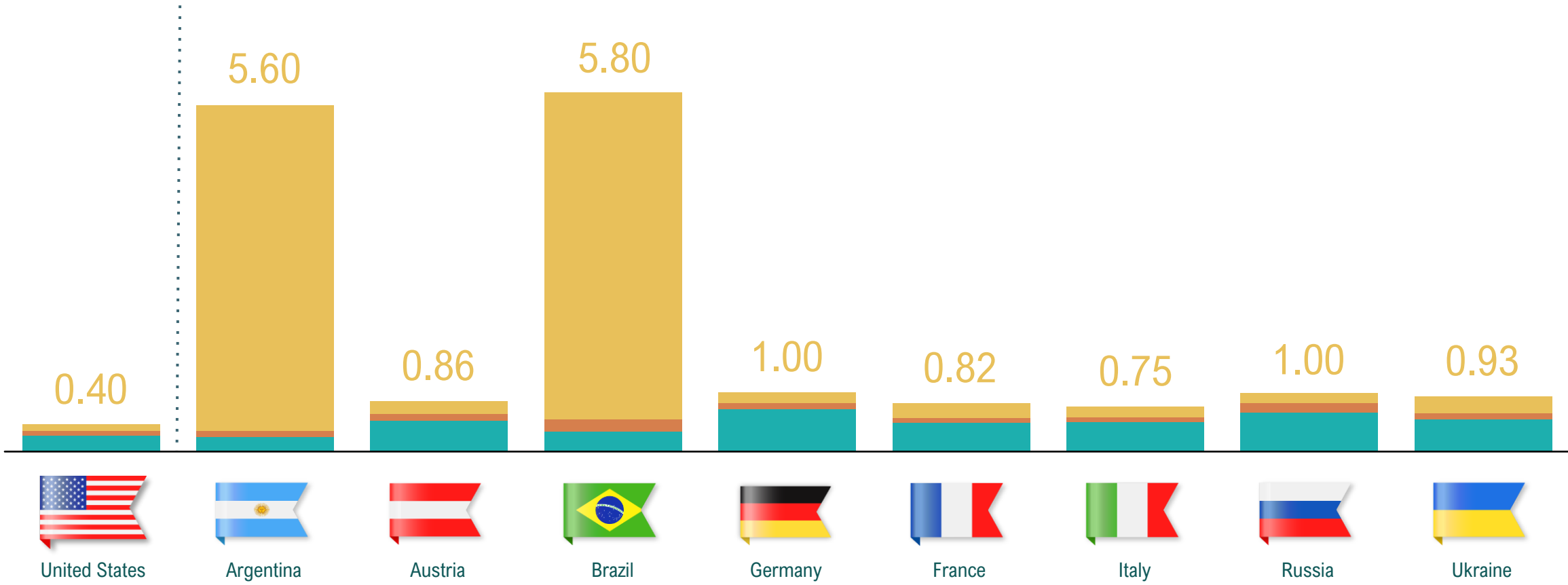


# Carbon Footprint

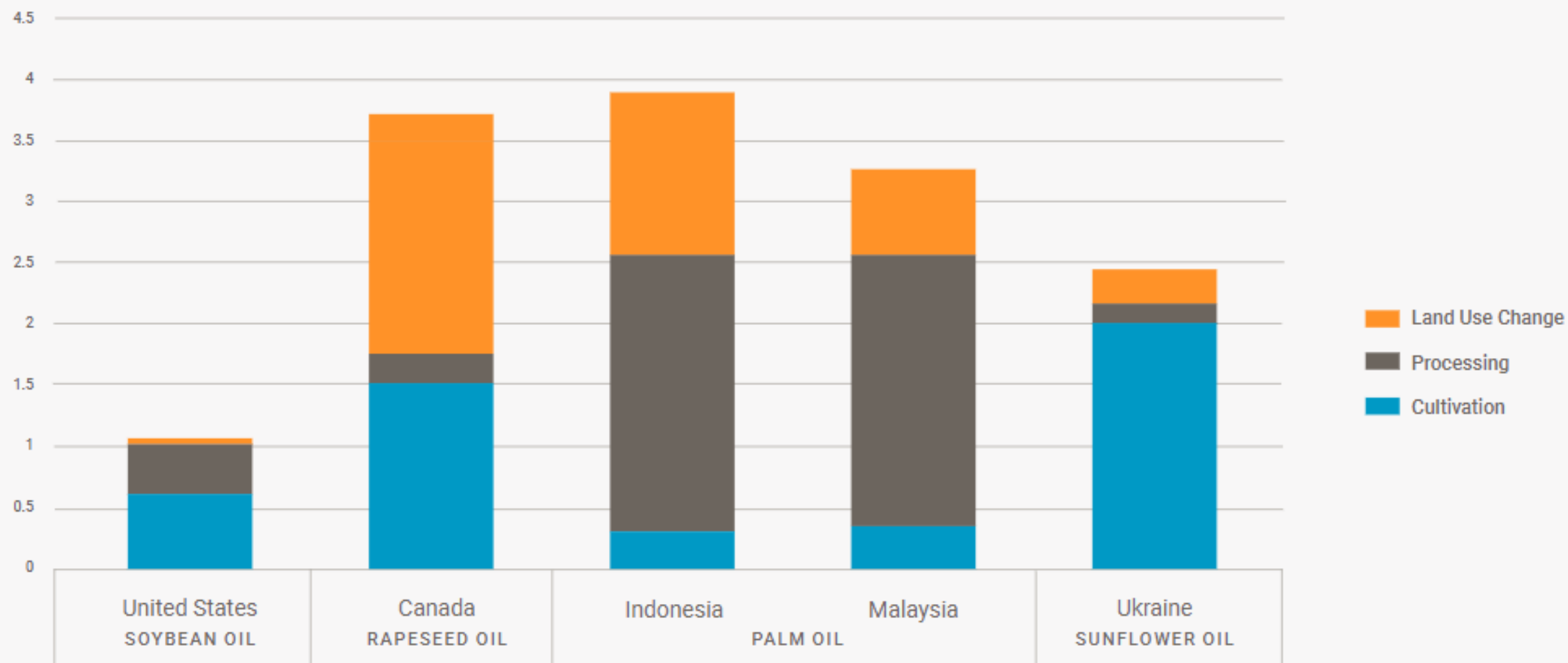
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# Carbon Footprint (including LUC) of whole soybeans imported into Japan

Total (kg CO<sub>2</sub> eq/kg product)



## Carbon Footprint (in. Land Use Change, ex. Peat) - Total (kg CO<sub>2</sub> eq/kg product)\*

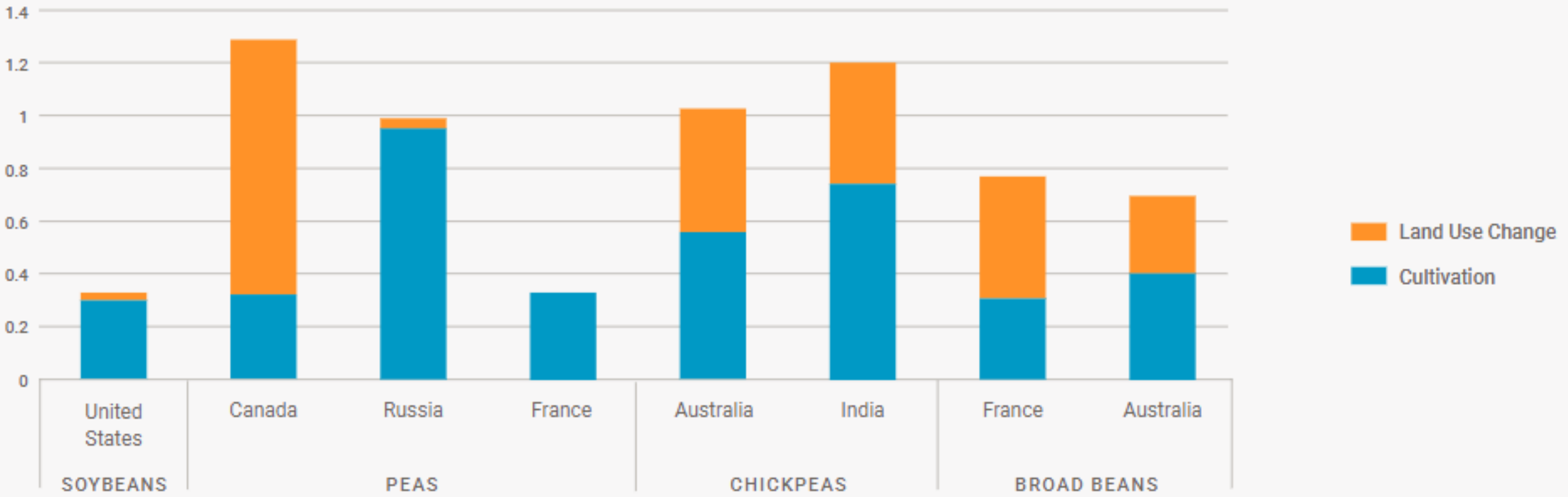


Source: Blonk Consultants, Agri-footprint

\* Results based on default emission modeling, including land use change emissions, according to the rules of the PEFCR-Feed guidance document (European Commission, 2018) as implemented in the Agri-Footprint 5.0 database. Input data rely on country average FAO statistics and other secondary sources. Supplier specific information would improve data quality and may provide differing results. Comparisons have not been reviewed in the context of ISO 14040/14044 compliance.



# Carbon Footprint (in. Land Use Change, ex. Peat) - Total (kg CO<sub>2</sub> eq/kg product)\*



Source: Blonk Consultants, Agri-footprint

\* Results based on default emission modeling, including land use change emissions, according to the rules of the PEFCR-Feed guidance document (European Commission, 2018) as implemented in the Agri-Footprint 5.0 database. Input data rely on country average FAO statistics and other secondary sources. Supplier specific information would improve data quality and may provide differing results. Comparisons have not been reviewed in the context of ISO 14040/14044 compliance.





What is GFLI?

The Global Feed LCA Institute (GFLI) is an independent non-profit animal nutrition and food industry institute created by the feed industry. The Institute developed and maintains a publicly available database of more than 1800 datasets on ingredients to make it possible for companies and other partners can calculate their product environmental footprint.

The GFLI database consists of over 1800 LCA datasets for major feed ingredients over the entire world (most datasets concentrated in Europe). With alignment of methodology with the FAO-LEAP & EU PEFCR Feed, the GFLI database is the most complete LCA database for feed (and food) ingredients.

How can it be used?

The GFLI can be used to compare the environmental footprint of various sourcing countries of soy to calculate your product's environmental footprint.

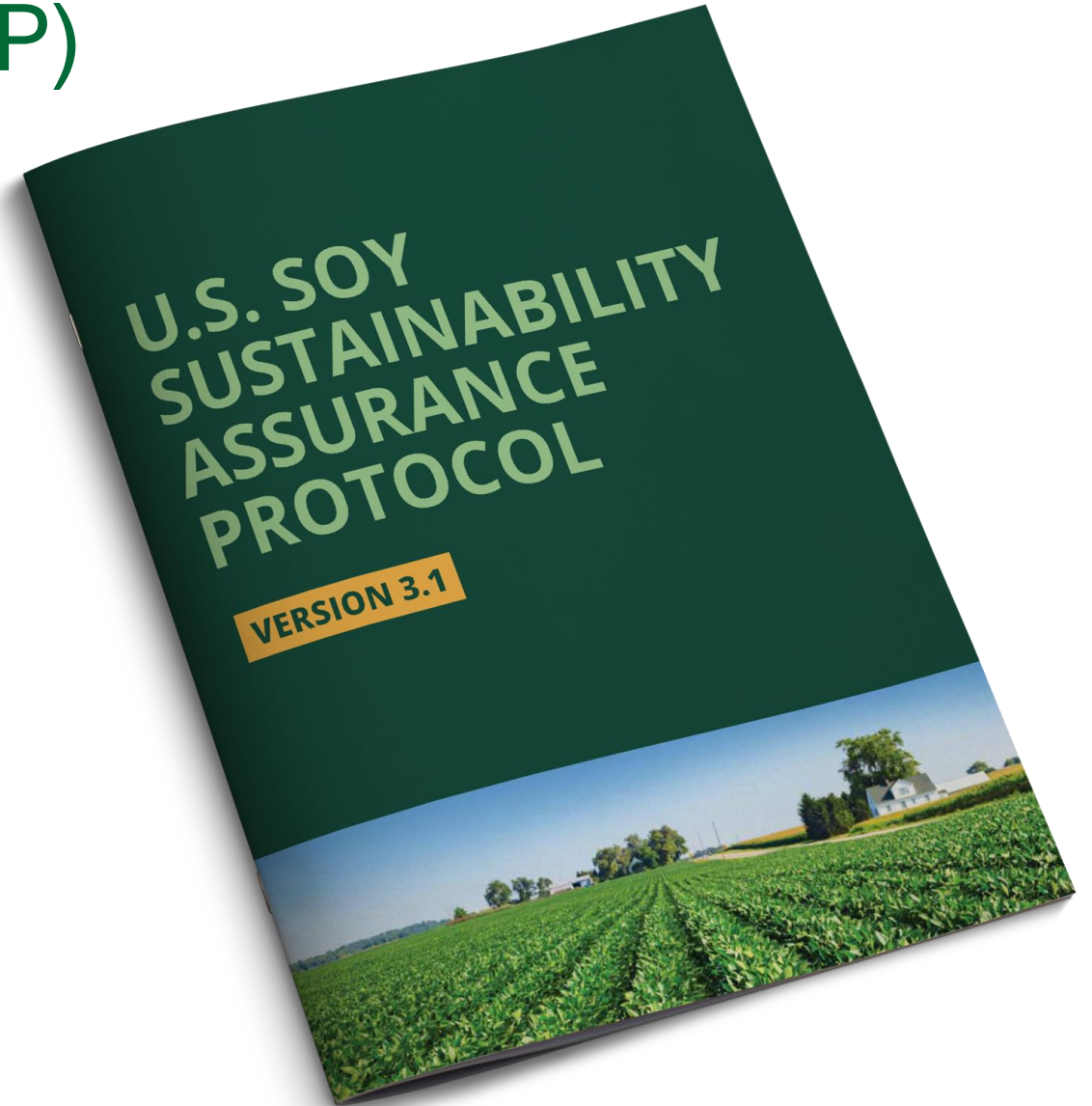


# U.S. Soy Sustainability Assurance Protocol

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# U.S. Soy Sustainability Assurance Protocol (SSAP)

- Scheme designed to meet sourcing guidelines in international market
  - Four Directives
- Aggregate
- Third party audit
- Certification
- Continuous Improvement Goals



# U.S. Soybean Sustainability Assurance Protocol

## FOUR DIRECTIVES WITH CONTROL MEASURES & REGULATIONS

### 1. Biodiversity and High Carbon Stock

Wetland, grassland, forest, biodiversity

### 2. Production Practices

Conservation tillage, crop rotation, precision farming

### 3. Public and Labor Health, and Welfare

EPA, EEO, OSHA

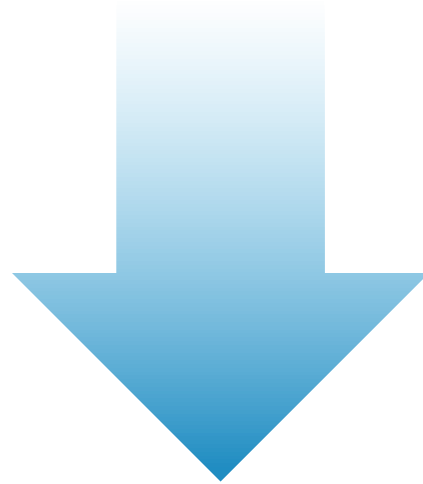
### 4. Continuous Improvement

CRP, Conservation programs, training and info sharing

# By 2025, U.S. Soybean Farmers Aim to:

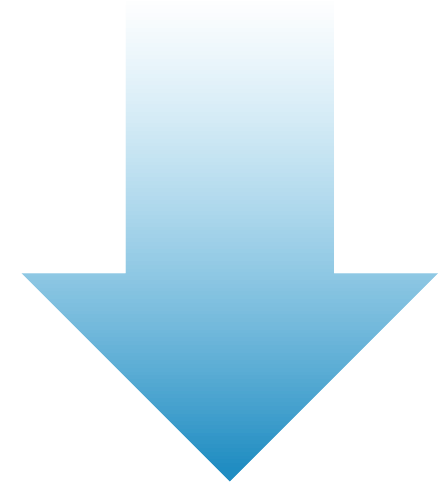
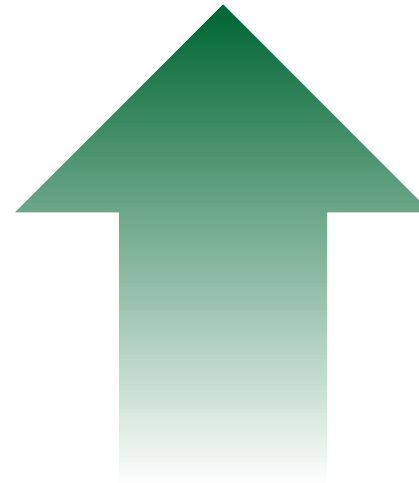


**REDUCE LAND  
USE IMPACT BY  
10 PERCENT**



**REDUCE SOIL  
EROSION 25 PERCENT**

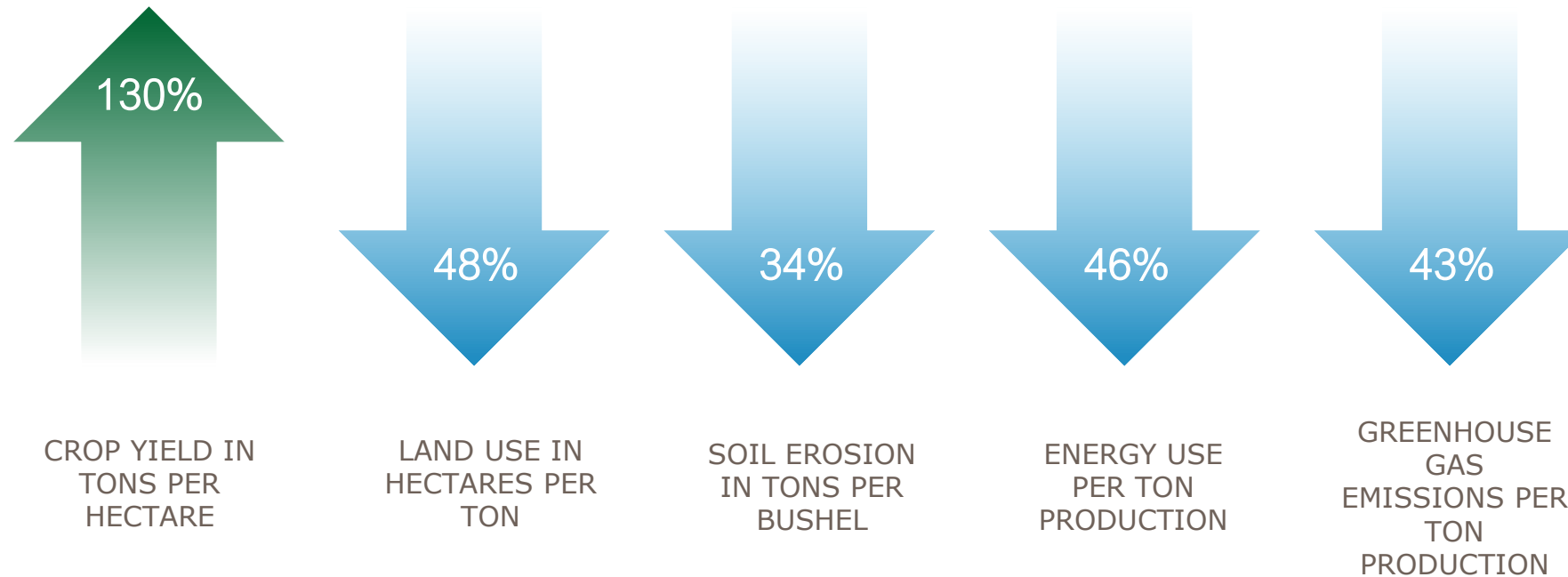
**INCREASE ENERGY  
USE EFFICIENCY  
BY 10 PERCENT**



**REDUCE TOTAL  
GREENHOUSE  
GAS EMISSIONS BY 10  
PERCENT**

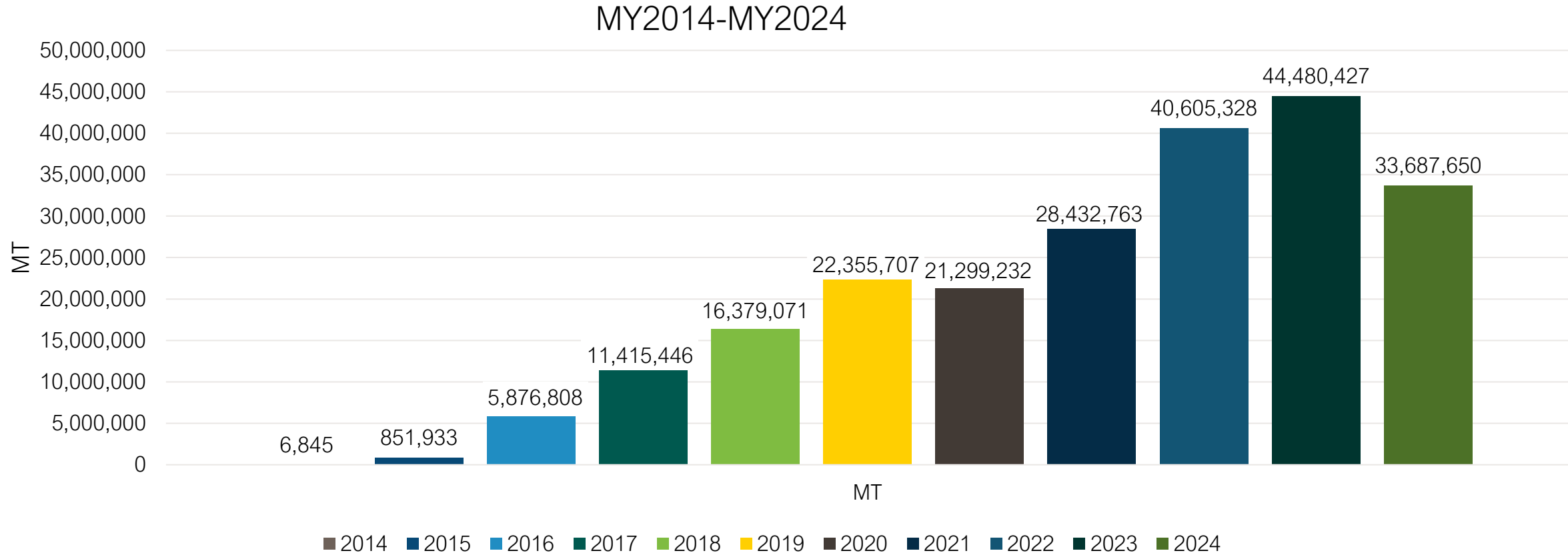
*These continuous improvement goals were adopted by key U.S. Soy organizations in 2014 and are based on Field to Market 2000 benchmark.*

# Environmental Impact of U.S. Soybean Production (1980-2020)



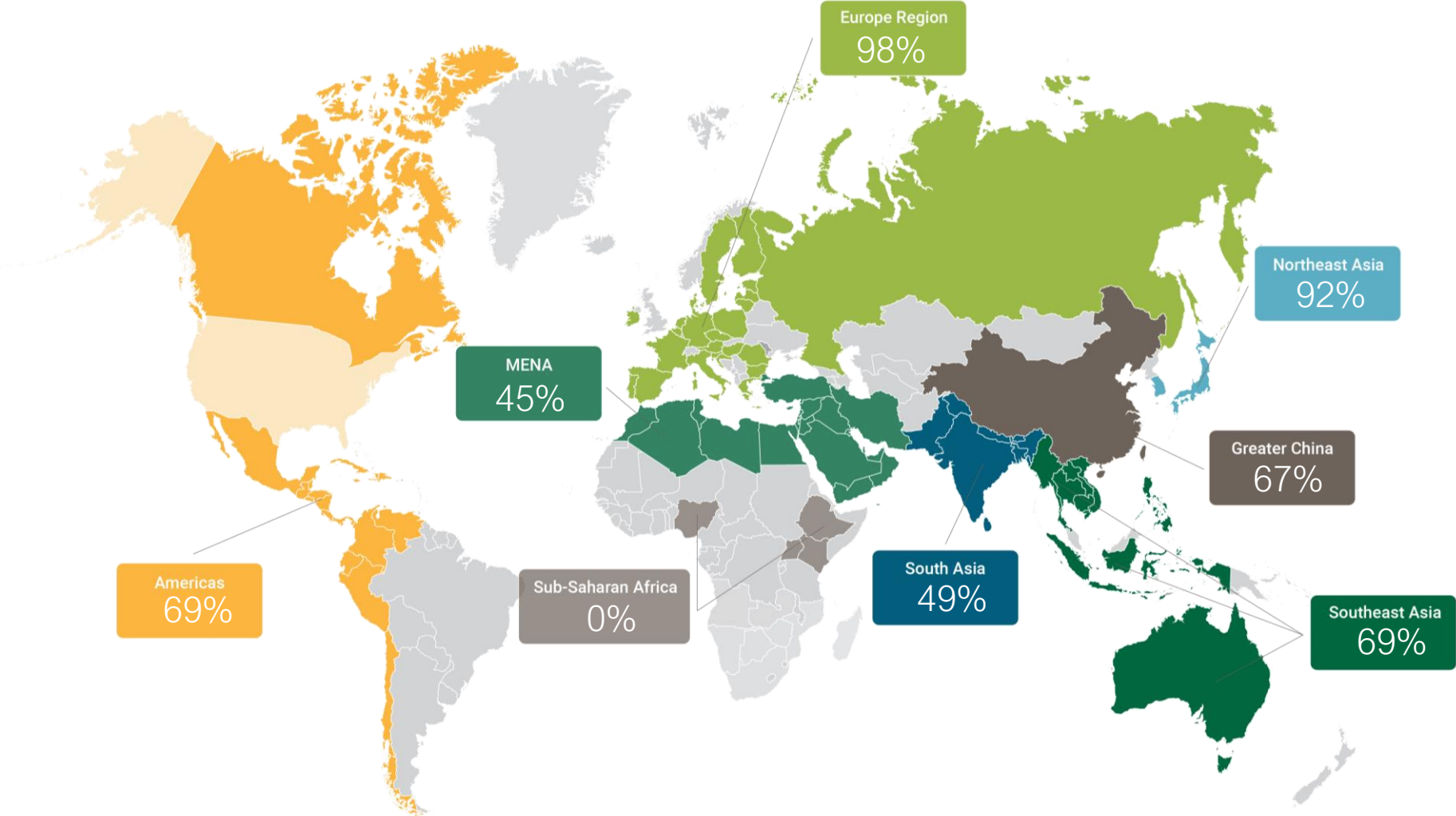
Field to Market: The Alliance for Sustainable Agriculture, 2021. Environmental Outcomes from On-Farm Agricultural Production in the United States (Fourth Edition). ISBN: 978-0-578-33372-4

# Verified Sustainable U.S. Shipments for Marketing years 2014-2024





# SSAP Shipments as a Percent of Total U.S. Soy Exports



# Key Achievements for SSAP



Gold Equivalency



# How to obtain an SSAP Certificate

- Speak to your supplier!
- SSAP certificates are transferable

# Coming Soon!

**Certificate of SUSTAINABILITY**

ACCORDING TO THE U.S. SOYBEAN SUSTAINABILITY ASSURANCE PROTOCOL

*This is to verify that soybeans or soy products described herein were produced in compliance with U.S. laws, regulations, production practices, and audit process as listed in the U.S. Soy Sustainability Assurance Protocol.*

NAME OF EXPORTING COMPANY	ZACH EXPORT TEST	VESSEL/CARRIER NAME/SHIPMENT IDENTIFIER	YES
DATE OF SHIPMENT	MAY 2, 2024	PRODUCT NAME	LECITHIN
METRIC TONS	0.001	COMPANY REPRESENTATIVE	ZACH COCOS
CERTIFICATE NUMBER	SES-SSAP-US24-075458801	DATE OF CERTIFICATION	MAY 1, 2024

**FOOTPRINT: 120.460 KG CO2 EQ/TON PRODUCT**  
GLOBAL WARMING – INCLUDING LAND USE CHANGE (LUC) & PEAT  
U.S. SOYBEAN EXPORT COUNCIL IS RESPONSIBLE FOR THE FOOTPRINT CALCULATED USING GFLI'S DATABASE (VERSION 2.1 (PUBLISHED OCT 2023)) AND METHODOLOGY. CALCULATIONS ARE BASED UPON GFLI LIFECYCLE IMPACT ASSESSMENT (LCIA), RECIPE. GFLI MAKES NO WARRANTIES ABOUT THE ACCURACY OF ITS DATA OR CLAIMS BASED ON ITS DATA, AND IS NOT RESPONSIBLE OR LIABLE FOR RELIANCE ON GFLI DATA OR METHODOLOGY. GFLI DOES NOT ENDORSE THIS OR ANY PRODUCT. LEARN MORE AT GLOBALFEEDLCA.ORG/GFLI-LOGO-USE/ CALCULATION IS BASED UPON THE PRODUCT (SOYBEAN) AND DOES NOT INCLUDE ANY FURTHER PROCESSING OR TRANSPORTATION.

**SES**

<b>SOY EXPORT SUSTAINABILITY, LLC</b> 16305 Swingley Ridge Rd., Suite 200 Chesterfield, MO 63017 USA	<b>CERTIFICATE VALIDATION</b> Use the Certificate Number and the Certificate Code to validate this certificate on the secure SES Certification Portal ( <a href="https://usses.org">usses.org</a> )	<b>CERTIFICATE CODE</b> FAD73CE7CA01D88805BE <i>All Soy Sourced &amp; Shipped from the U.S.A.</i>
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# SUSTAINABLE U.S. SOY™



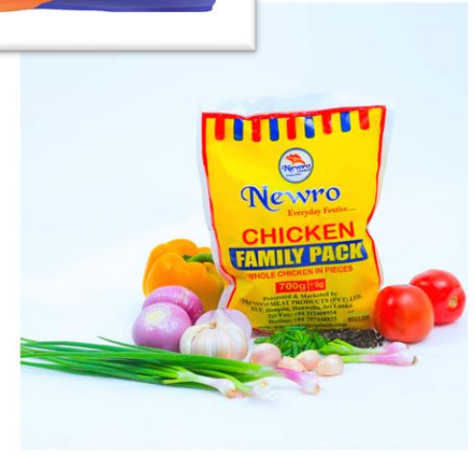
- U.S. Trademark approved
- In use in:
  - Belize
  - Mexico
  - El Salvador
  - Nicaragua
  - Guatemala
  - China
  - Colombia
  - Taiwan
  - Ecuador
  - Japan
  - Panama
  - South Korea
  - Venezuela
  - Indonesia
  - Costa Rica
  - Philippines
  - Dominican Republic
  - Vietnam
- Can be used to differentiate U.S. Soy, examples can include bags, totes, labels, etc.

*Fed with*

# SUSTAINABLE U.S. SOY™



**Chicken GARLIC SAUSAGES**  
 ಉದ್ದಿನ ವಿಶವ್ ಜಾಣಲೆಕೆರೆ



# SOY.ORG

Thank You!