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MASTERS 2024



# Welcome!





# Markets and Innovation Sessions

## Outlook for Vegetables Oils



**Rodrigo Martinez**  
StoneX

## Soy Biobased Industrial and Consumer Products



**Barry McGraw**  
Airable Research Lab

## High Oleic Soybean Oil Quality Driving Value



**Jorge Martinez**  
U.S. Soybean Export Council



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Enter passcode

**SBOMASTERS**

# Outlook for Vegetable Oils

StoneX Financial Inc. – FCM Division

Rodrigo Martínez

Senior Trader

[www.stonex.com](http://www.stonex.com)



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## Topics of Discussion

### Macro influence

- Inflation expectations and investor participation
  - Interest rates higher for longer
- War – Uncertainty availability/logistics

### Global vegoil fundamentals

- Sunflower
- Canola
- Palm oil
- Soybean oil
  - Biodiesel and Renewable Diesel adaptation

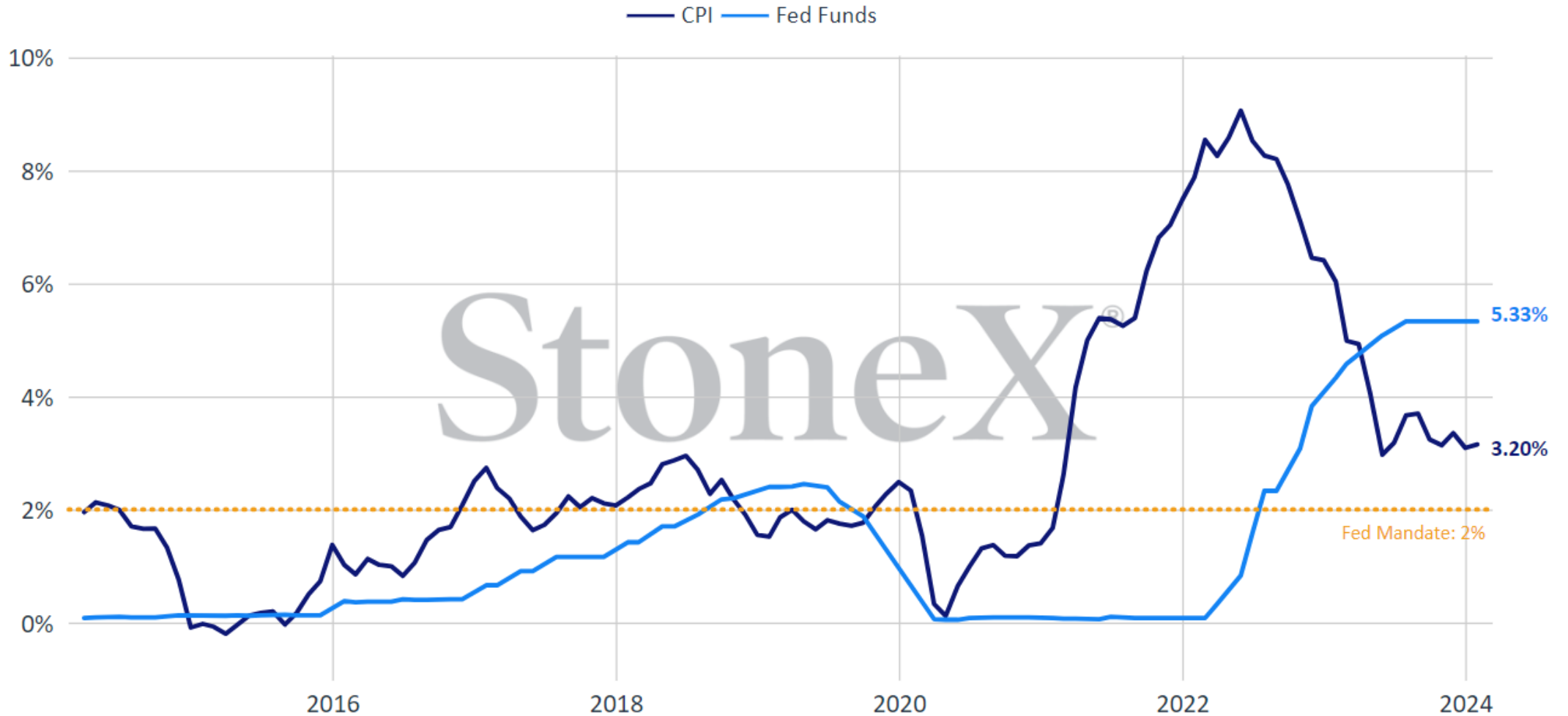
### Price performance

$$P = f(S * D) M$$

**Price is a Function of Supply  
and Demand as Modified by  
the Flow of Money.**

## Consumer Price Index YoY Change vs Fed Funds Rate

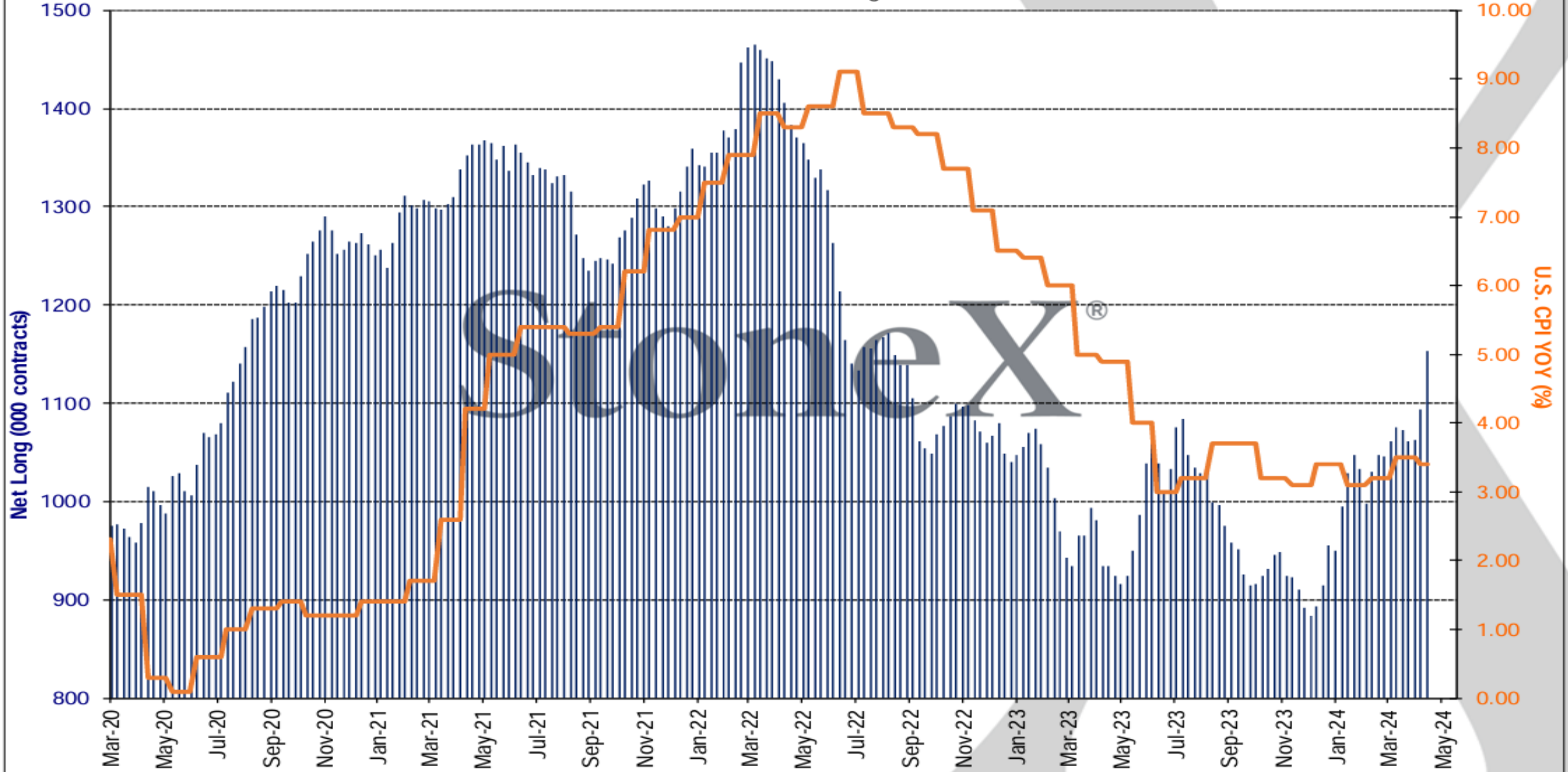
Source: StoneX Calculation & Bureau of Labor Statistics, Federal Reserve Economic Data



The Decline in Inflation Stalled When the Fed Stopped Raising Rates

# Net Index Fund Long (Grains, Oilseeds, and Livestock) - vs Inflation (U.S. YoY CPI)

Source: Bloomberg



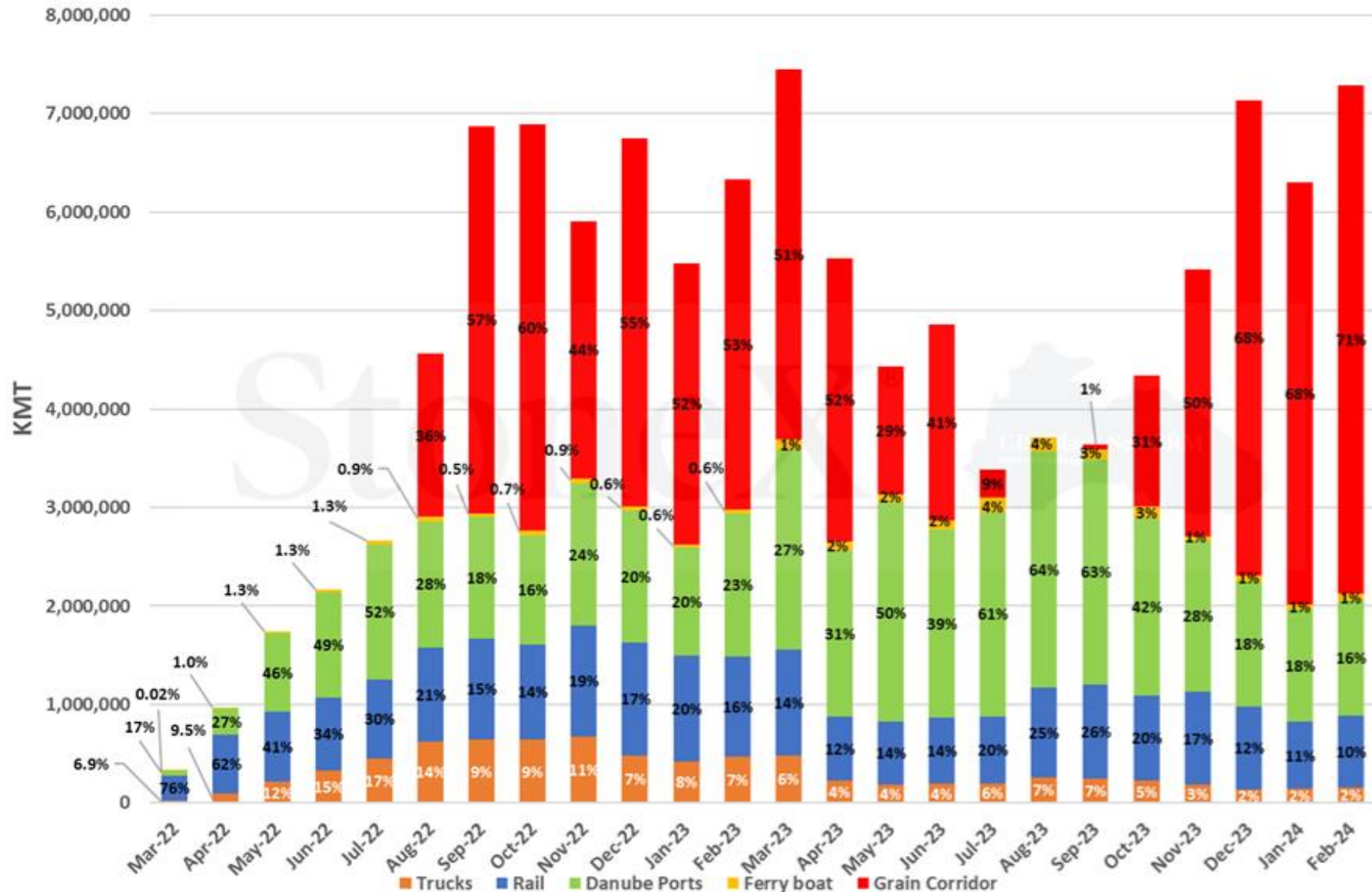




# Geopolitical Risks

# Ukraine Exports by Transportation

(Source: UkrAgroConsult)



# Middle East Risks Escalate



- **Houthi Rebels Strike Civilian Ships in Red Sea.**
- **Attacks Now Include Crude Oil Tankers & Grain Ships.**
- **Escalation Continues.**
- **Cargo Ships Moving Through Red Sea Down 50%+.**
- **Panama Canal Limited Until At Least May.**
- **Increased Shipping / Logistics Contribute to Inflation.**

- Taiwan Remains a Potential Black Swan Event.
- China's Oct. – Feb. Imports of US Soybeans down 10 mmt.
- China's Oct. – Feb. Imports of Brazil Soybeans Increased by 12 mmt.
- Cost Remains a Factor, Impacted by Currency.



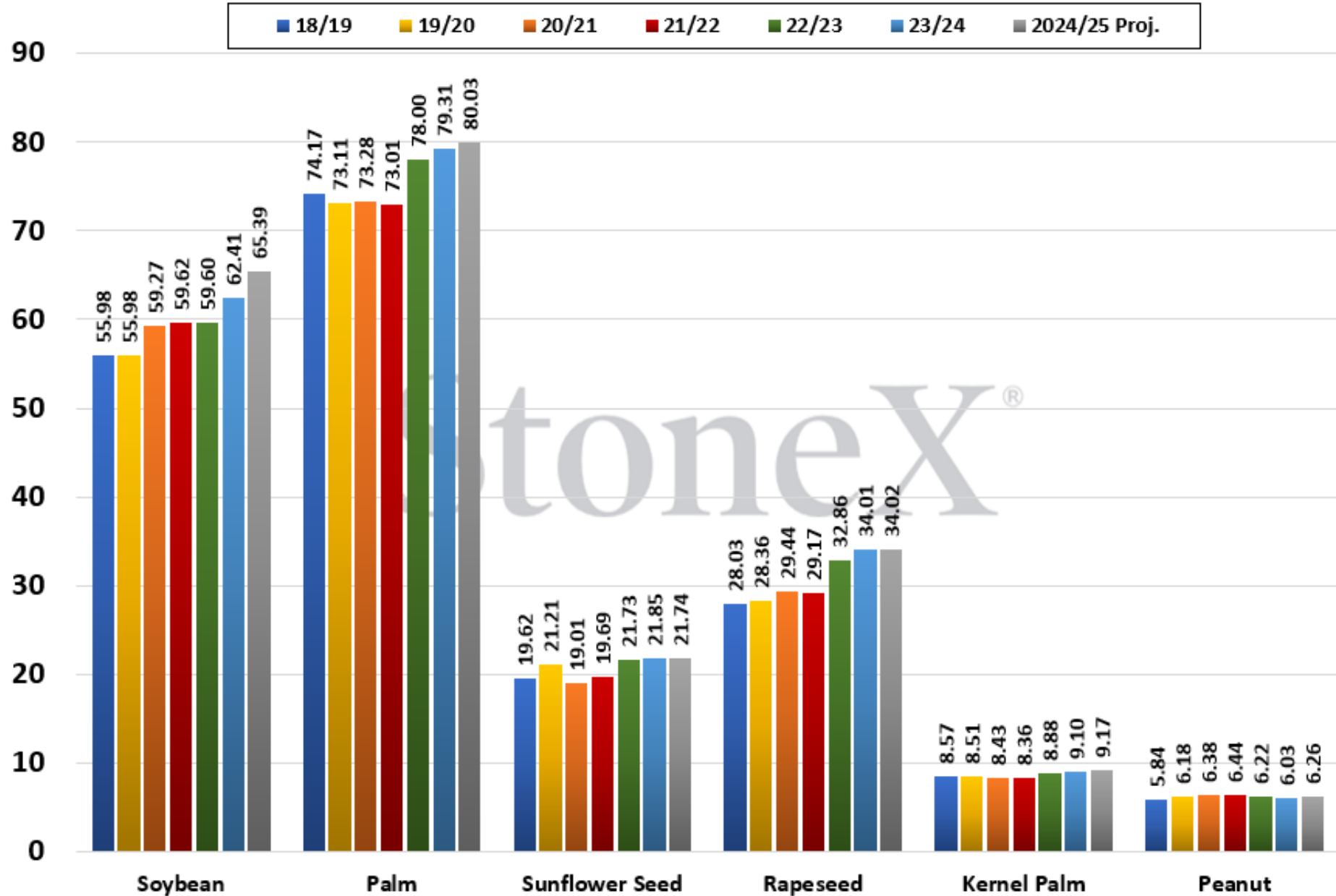


StoneX<sup>®</sup>

**Vegoil Markets**

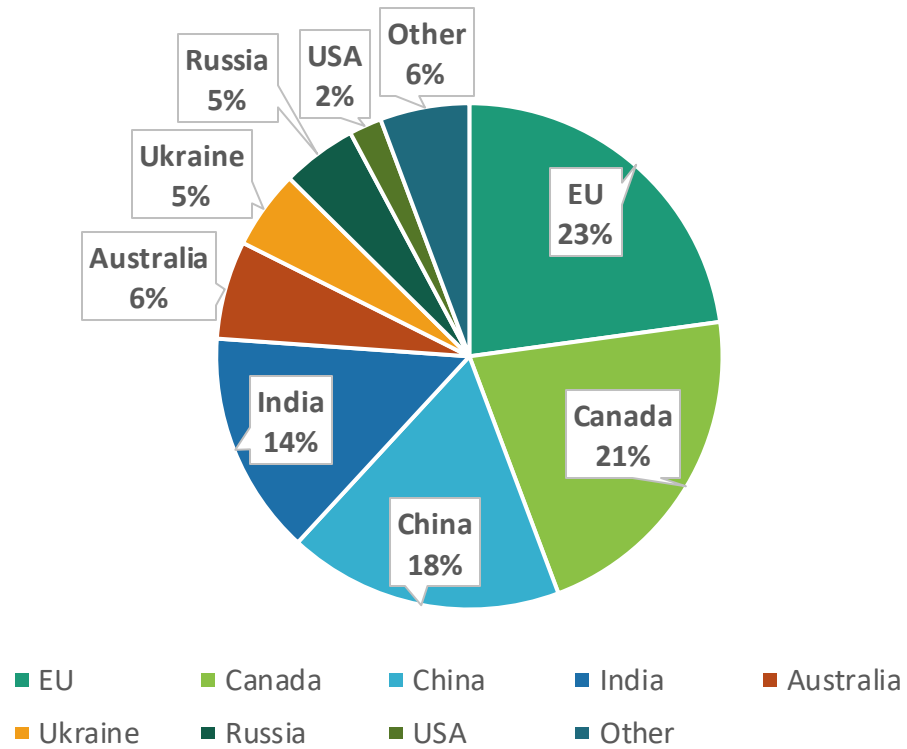
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# World Vegetable Oils Production (mmt)

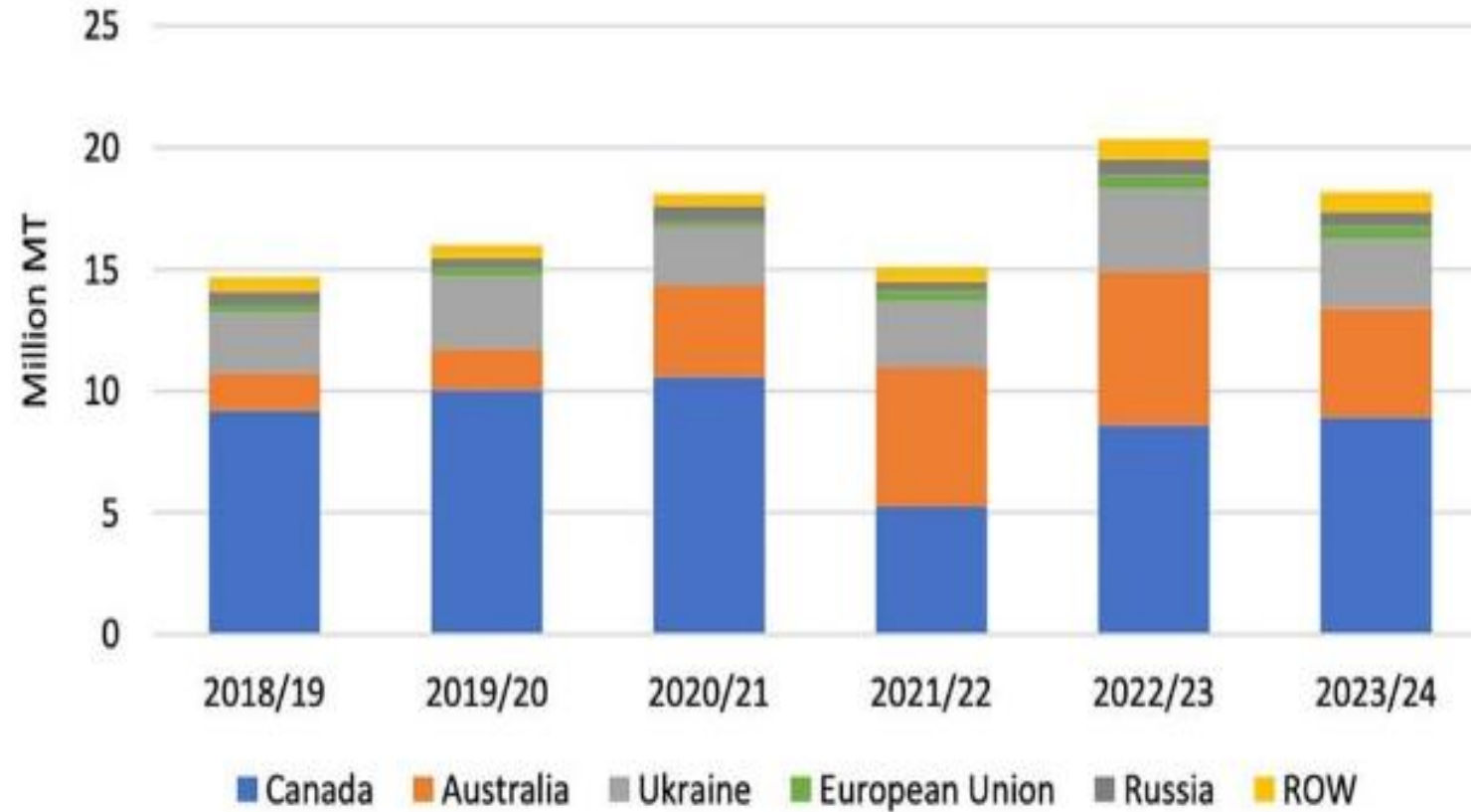


# Global Canola Market and Key Players – Biggest Producers & Exporters

World's Top Canola Producers (USDA)



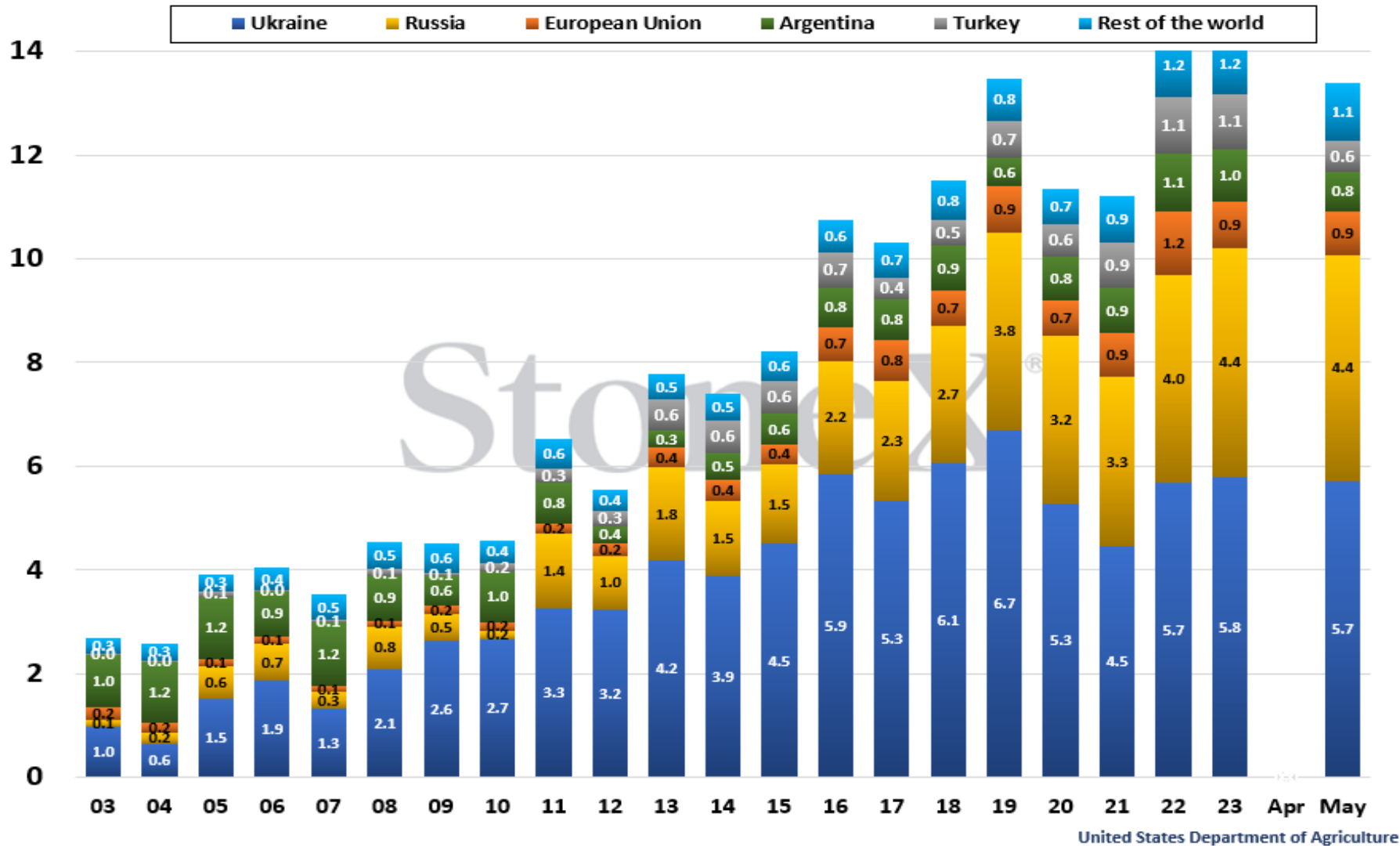
Global Rapeseed Exports



Lower rapeseed/canola production and exports from Australia and Ukraine will result in more reliance in Canadian exports  
 Canadian rapeseed oil production >5 mmt – Exports

# Sunflower Oil Market and Key Players – Biggest Exporters

## World Exports Sunflower Seed Oil (mmt)

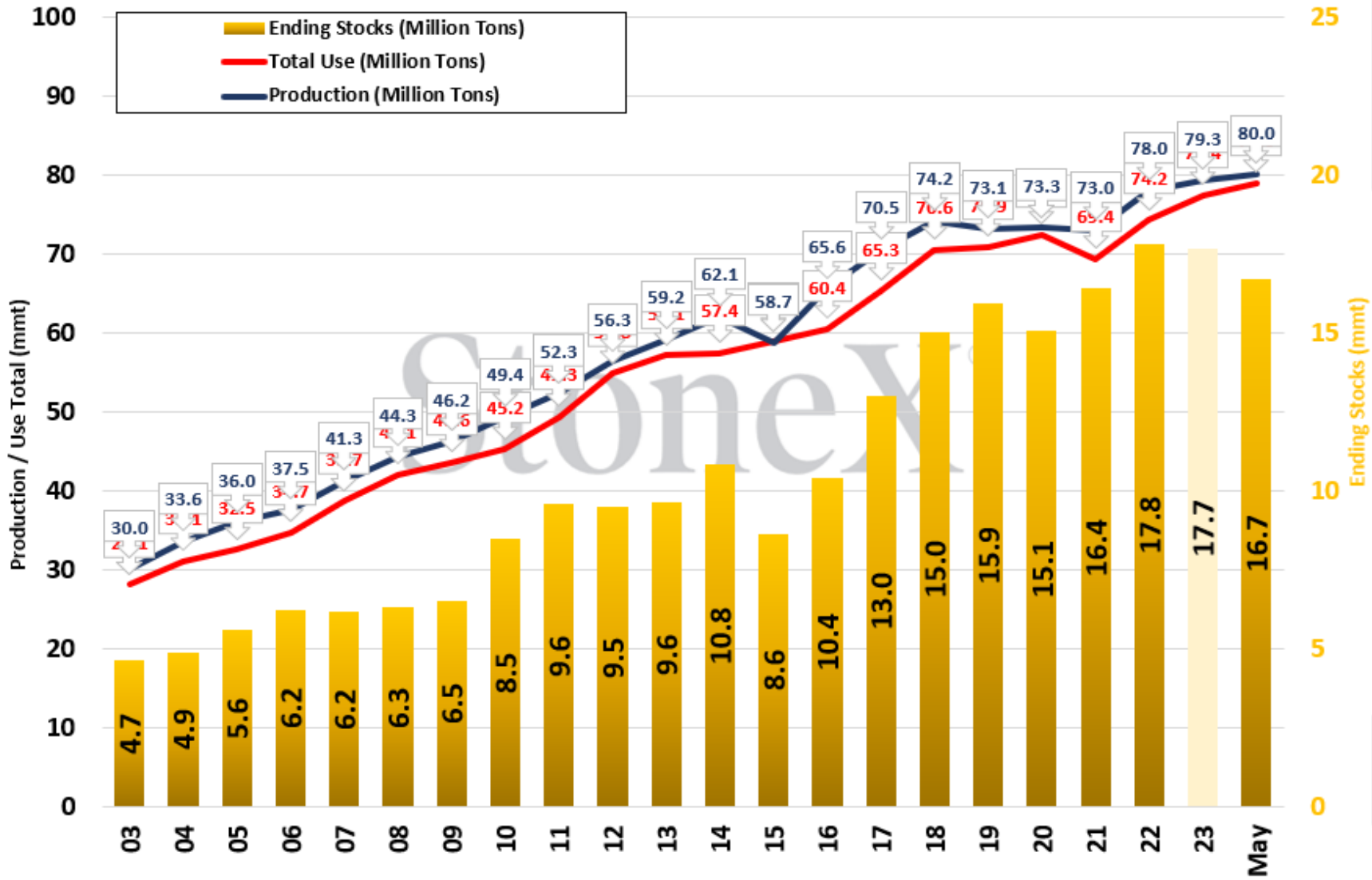


Total exports expected -0.9 to 13.4 mmt

Ukraine exports expected to decline on lower production (weather, area, fertilizer and quality seed access)



## World Palm Oil Production vs. Use / Ending Stocks



United States Department of Agriculture

### Palm Oil Production (mmt):

- Indonesia +0.5 to 47.5
- Malaysia even at 19
- Thailand +0.1 to 3.4
- Colombia +0.1 to 2.0

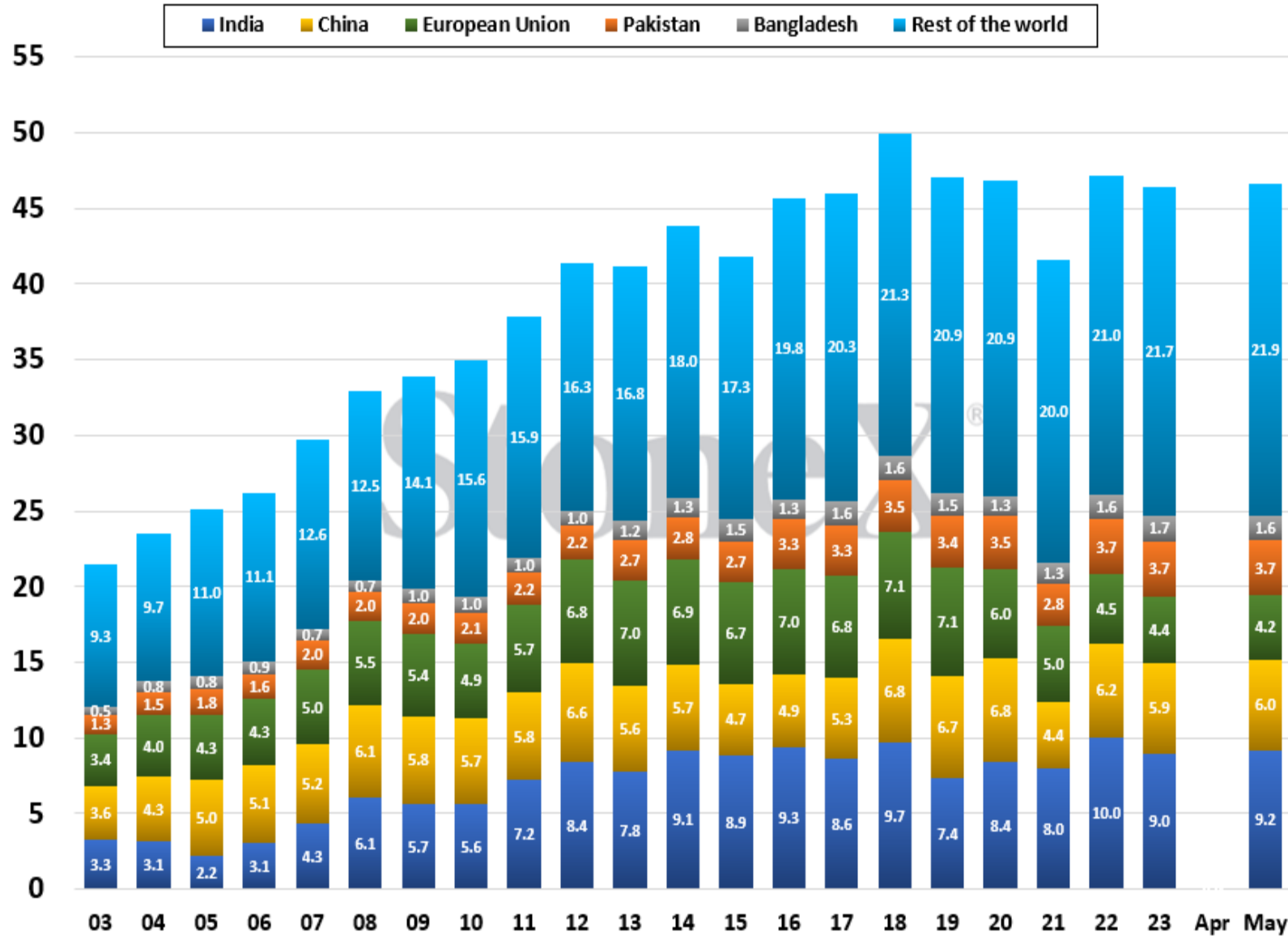
### Palm Oil Domestic: 79 mmt

### Palm Oil Exports (mmt):

- Indonesia -0.2 to 26.6
- Malaysia +0.1 at 15.9
- Guatemala 0.95
- Colombia 0.63

### Ending stocks: 16.7 mmt

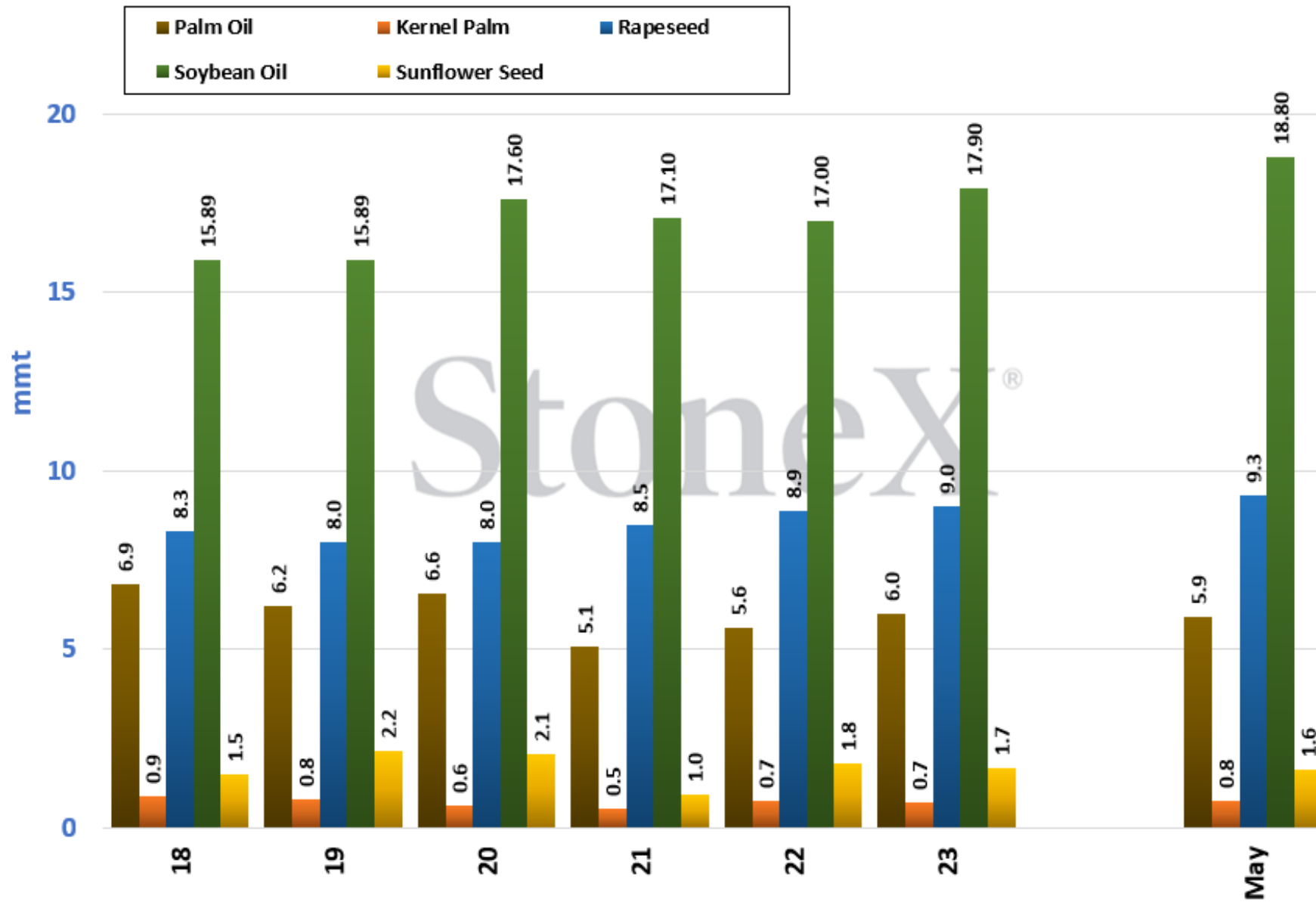
# World Imports Palm Oil (mmt)



United States Department of Agriculture

- Total imports recover to 46.6 mmt
- Imports from India and China increase by 0.2 and 0.1 mmt respectively
- Europe and Bangladesh imports to fall 0.2 and 0.1 mmt respectively
- Rest of world increase by 0.2 mmt

## China Vegetable Oils Domestic Use

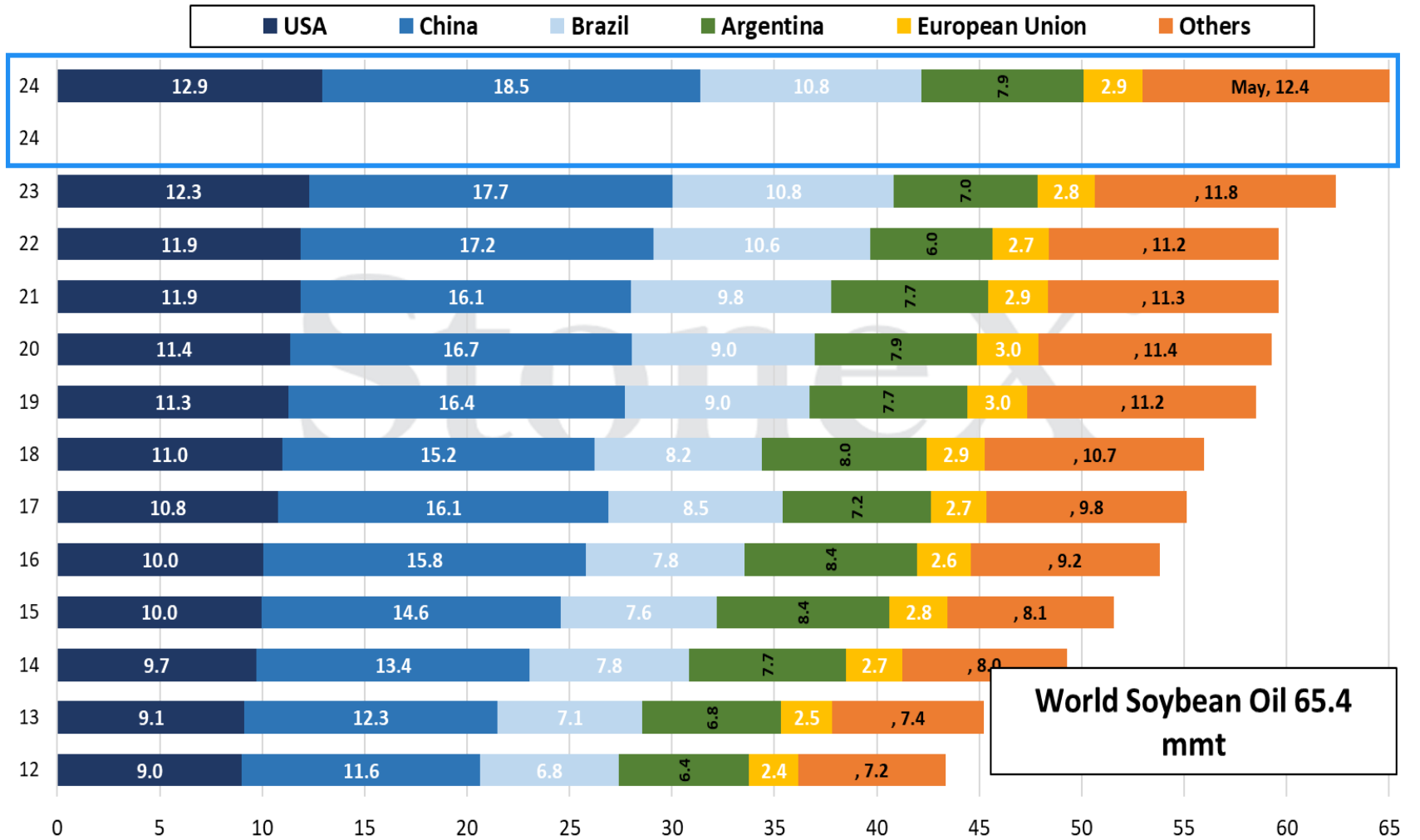


# Soybean Market Factors





## World Soybean Oil - Production (mmt)



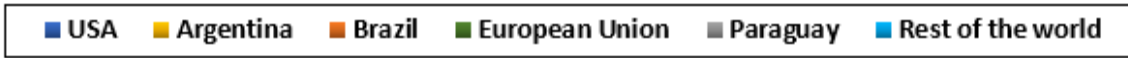
### Soybean Oil Production (mmt):

- Argentina +0.9 to 7.9
  - Brazil even at 10.8
  - China +0.8 to 18.5
  - USA +0.6 to 12.9
  - Colombia +0.1 to 2.0
- To achieve this, we need to materialize US and next South American Crops
  - Brazil expected to achieve a record soybean crop to 169 mmt
  - Transition to La Niña could threaten Argentina's next production cycle – its exports

World Soybean Oil 65.4 mmt

United States Department of Agriculture

# World Exports Soybean Oil (mmt)



## 2023/24:

- Argentina recovers to 4.8 mmt
- Brazil loses margin
- Paraguay gains 0.1 mmt
- US stays at 0.2 mmt

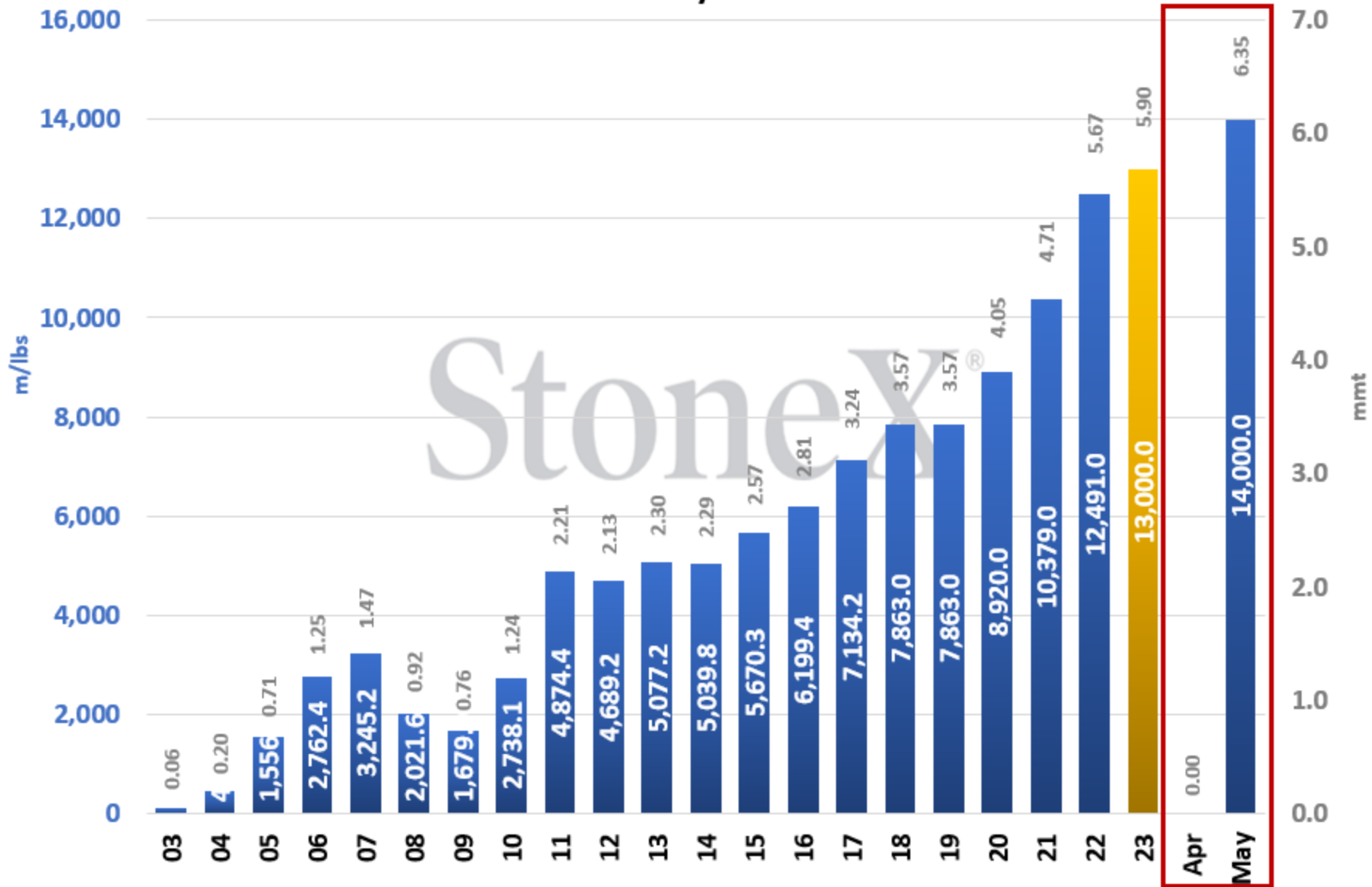
## 2024/25:

Total exports at 12 mmt – 3<sup>rd</sup> largest

- Argentina recovers further to 5.5 mmt
- Brazil drops to 1.4 mmt
- EU gains 0.3 mmt
- US exports stay unchanged

United States Department of Agriculture

# US Biodiesel Soybean Oil



# Biomass-Based Diesel 101

- **Biodiesel** is first generation and using a chemical reaction to create the finished product
- **Renewable Diesel (RD)** is second generation and uses a similar process to crude oil cracking (hydrocracking) to create the finished product
- **Sustainable Aviation Fuel (SAF)** is second/third generation and can be produced at a renewable diesel facility or can be produced from alcohol/ethanol



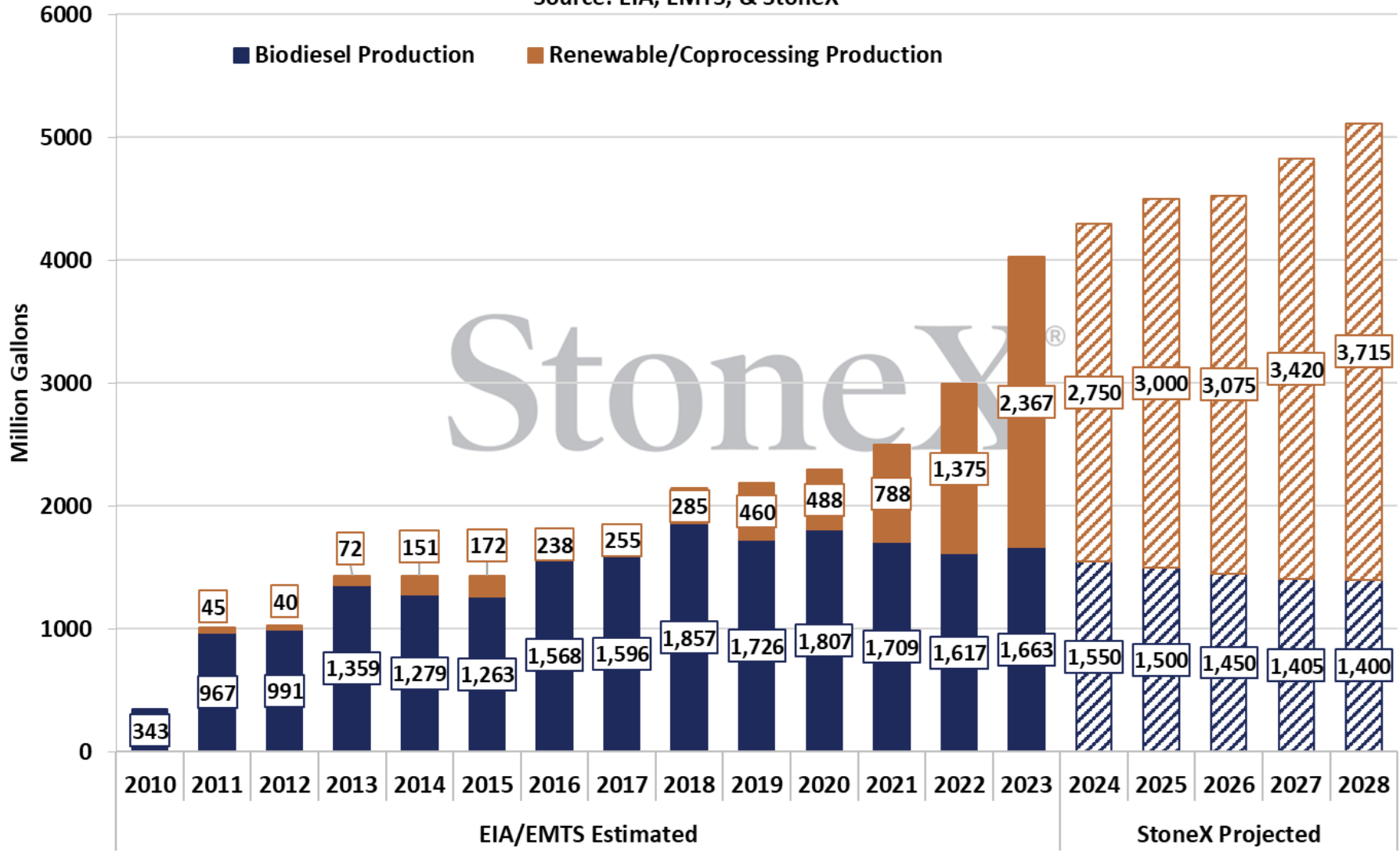
# Players In The Renewable Space Now Include



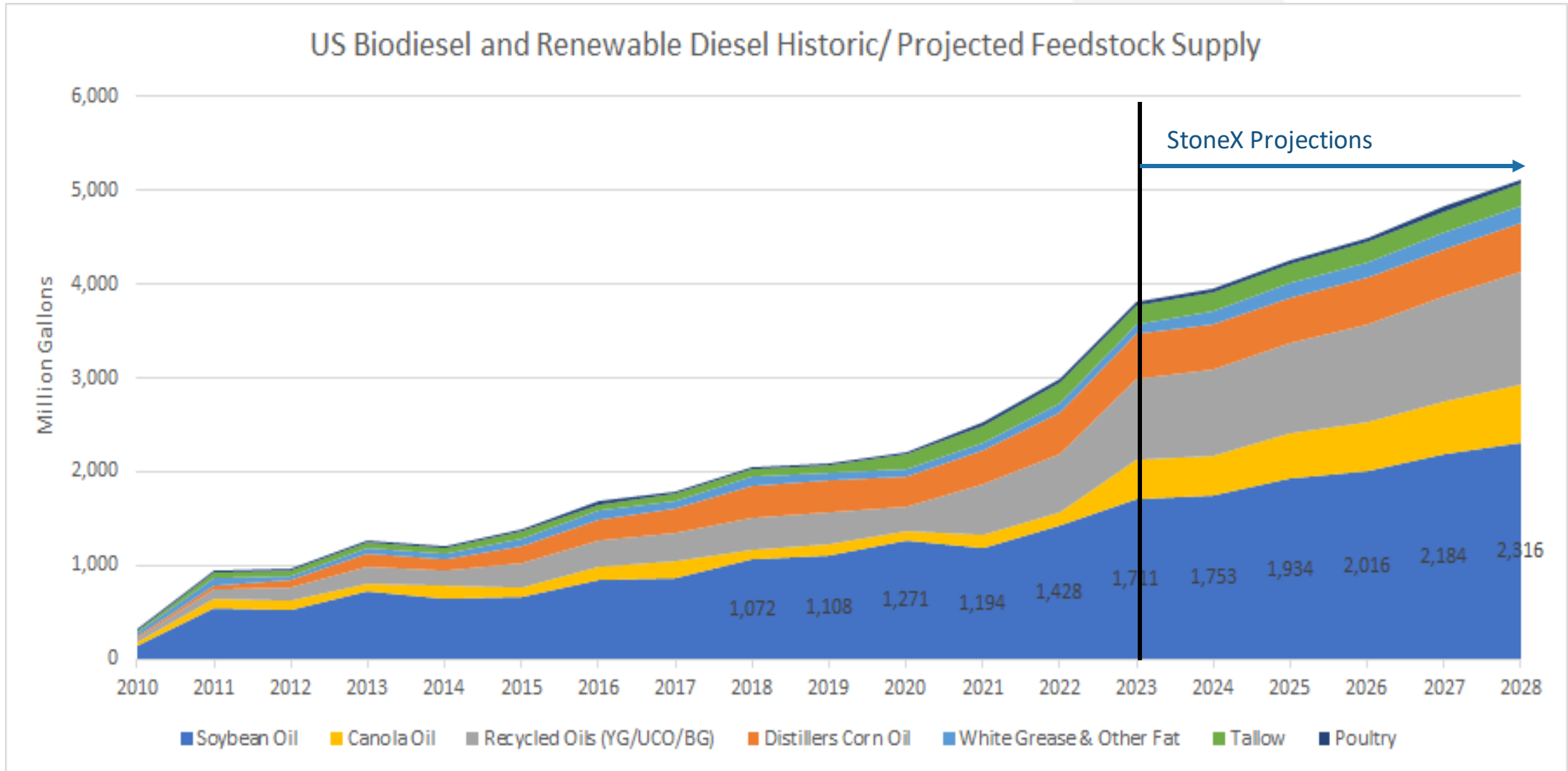
These companies hold just shy of \$1 trillion market cap

# Biodiesel/Renewable Diesel Production

Source: EIA, EMTS, & StoneX

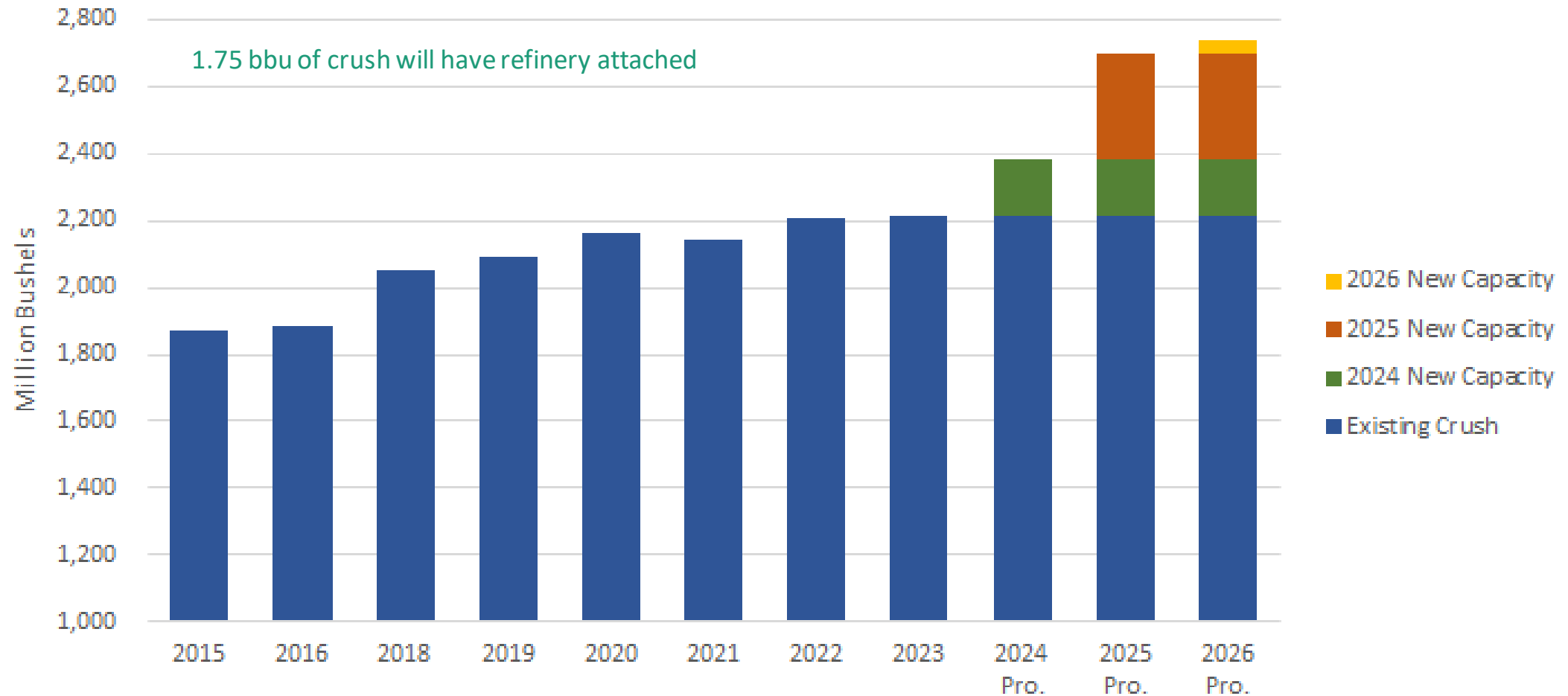


# Historical Consumption



# Existing Crush & Refining Capacity

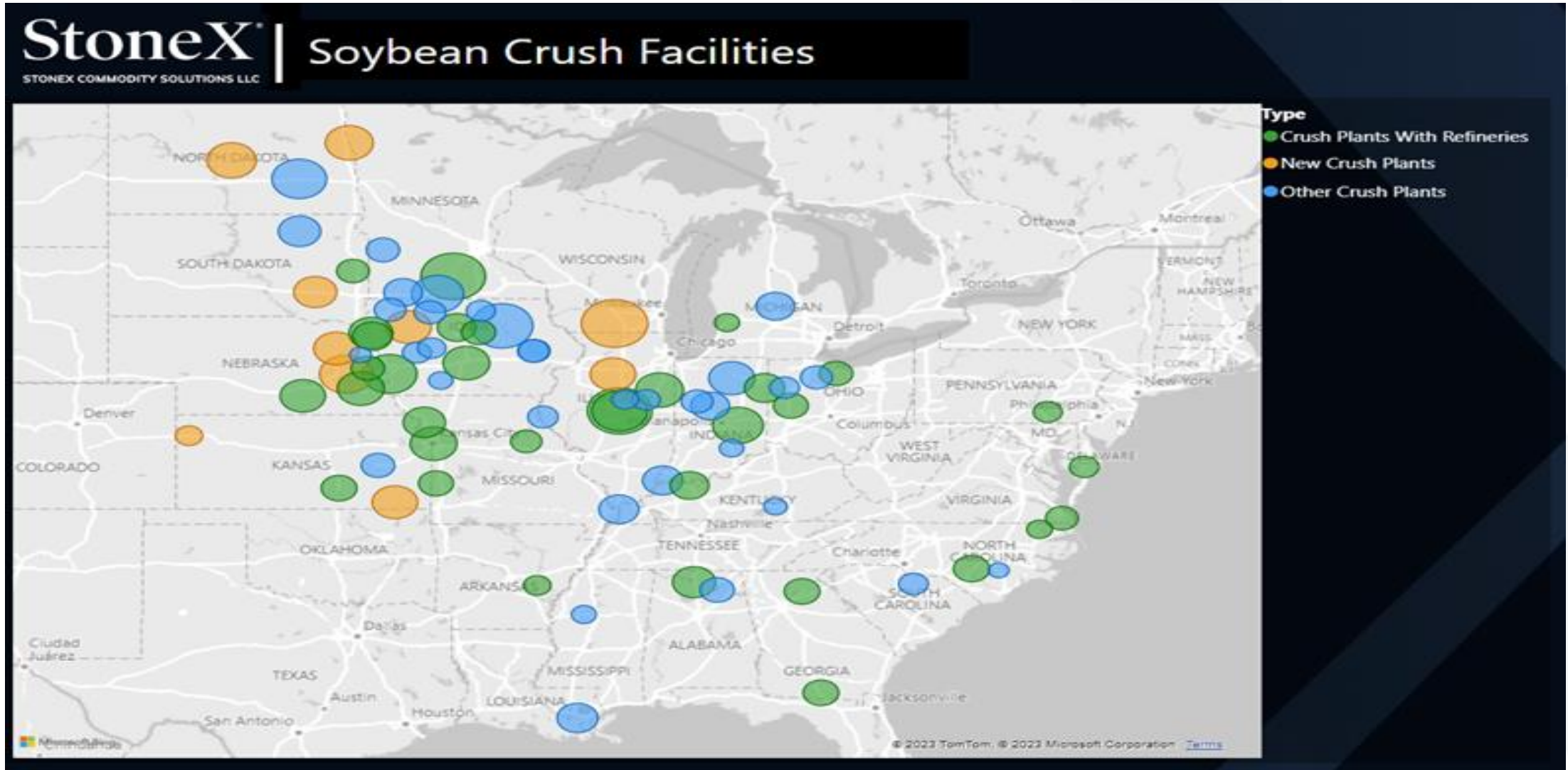
## Historic & Projected US Soybean Crush



Sources: NASS



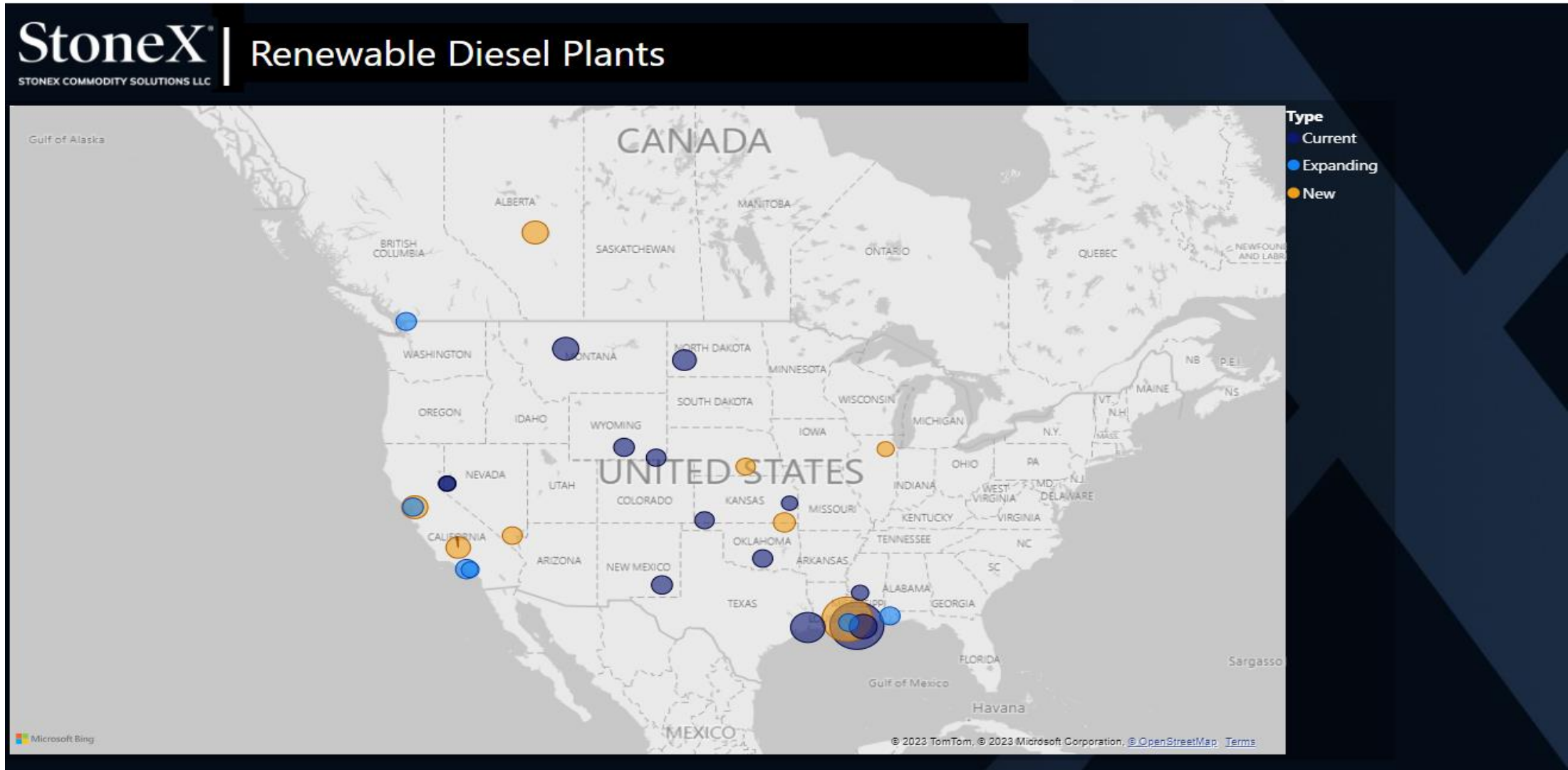
# Existing Crush & Refining Capacity



# Renewable Diesel Production

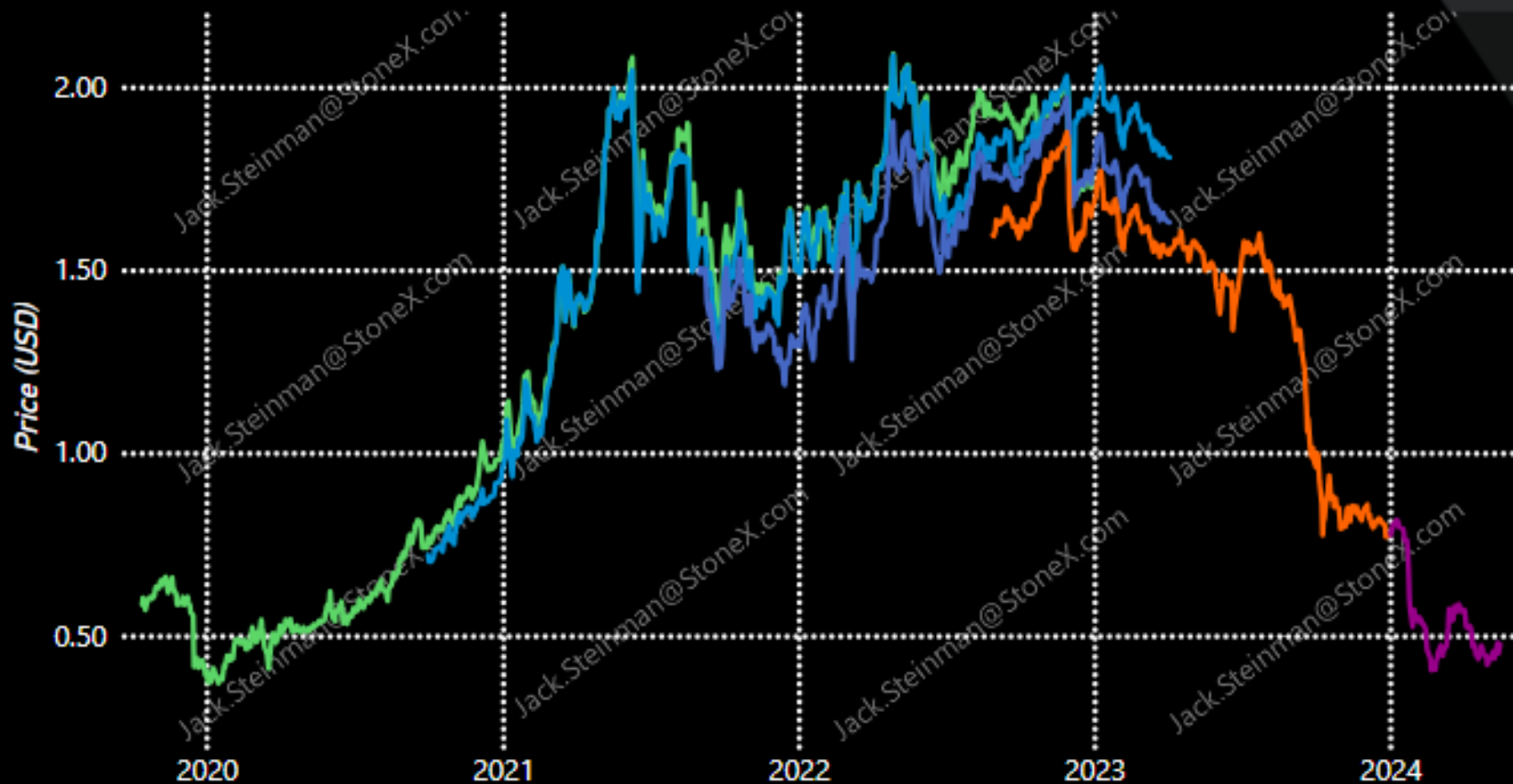
Plant Name	City	State	Capacity (MMGY)	Feedstock	Estimated date online	Expansion	Diff
Bakersfield Renewable Fuels (GCEH)	Bakersfield	CA	230	Camelina	Q1 2023		
BP-Cherry Point Refinery	Blaine	WA	66	Multi-feedstock	2023	110	44
Chevron	El Segunda	CA	31		Online/Not Nameplate		
CVR Energy - Wynnewood	Wynnewood	OK	100	Multi-feedstock	Q4 2022 start up		
CVR Energy - Coffeyville	Coffeyville	KS	150	Multi-feedstock	?		
Diamond Green Diesel - Norco	Norco	LA	982	Multi-feedstock	Q2 2022 inc. of 450		
Diamond Green Diesel - Port Arthur	Port Arthur	TX	470	Multi-feedstock	Q1 2023		
East Kansas Agri-Energy Renewable Diesel	Garnett	KS	3	Corn Oil			
Gron Fuel	Baton Rouge	LA	900	Multi-feedstock	2026 best case		
Heartwell Renewables (Love's/Cargill)	Hastings	NE	80	Tallow	Q1 2024		
HF Sinclair	Artesia	NM	125	Multi-feedstock	Q1 2022 start up		
HF Sinclair	Cheyenne	WY	92	Multi-feedstock	Q4 2021 start up		
HF Sinclair	Sinclair	WY	117	Soy Oil	Mid 2018 start up		
Jaxon	Jackson	MS	30	Multi-feedstock	2018 start up		
Kern Oil & Refining/Kern Energy	Bakersfield	CA	6				
Marathon Petroleum	Dickenson	ND	192	Soy Oil, DCO	Q4 2021 start up		
Marathon Petroleum/Neste	Martinez	CA	260	Multi-feedstock	Q4 2023	730	470
Montana Renewables (Calumet)	Great Falls	MT	260	Multi-feedstock	Q4 2022 fully online 2023		
PBF Energy	Chalmette	LA	300	Multi-feedstock	First half 2023		
Phillip 66	Rodeo	CA	120	Multi-feedstock	Q1 2025	800	680
REG Geismar	Geismar	LA	100	Multi-feedstock	Q4 2023	340	240
Ryze Renewables	Reno	NV	40	Multi-feedstock	Q1 2023 start up		
Ryze Renewables	Las Vegas	NV	100	Multi-feedstock	Filed Chapter 11		
Seaboard Energy	Hugoton	KS	85	Multi-feedstock	Q4 2022 start up		
Vertex Energy	Mobile	AL	110	Multi-feedstock	Q1 2023	195	85
World Energy	Paramount	CA	42	Multi-feedstock	Q4 2023	360	318
Unannounced	TBD	TBD	20	Soy Oil			
<b>Total</b>		<b>Current Capacity</b>	<b>3,531</b>	<b>26,835,600,000</b>		<b>2,800</b>	<b>1,837</b>
		<b>Total Potential</b>	<b>6,848</b>	<b>52,044,800,000</b>			
Running	3,531						
Expanding	1,837						
Under construction	430						
Proposed	1,050						

# Renewable Diesel Production





### Time vs RIN's Price



**D Code & Vintage**

- D4 2020
- D4 2021
- D4 2022
- D4 2023
- D4 2024

**Prior Day '24 Vintage**

D Code	Low	High	Average
D3	3.1200	3.1500	3.1350
D4	0.4700	0.4800	0.4750
D5	0.4700	0.4800	0.4750
D6	0.4700	0.4800	0.4750
RVO			7.6800

**Current Month '24 Vintage**

D Code	Low	High	Average
D3	0.4750	3.2300	2.9242
D4	0.4200	0.4900	0.4506
D5	0.4200	0.4850	0.4490
D6	0.4200	0.4950	0.4506
RVO			7.1910

**Current Year '24 Vintage**

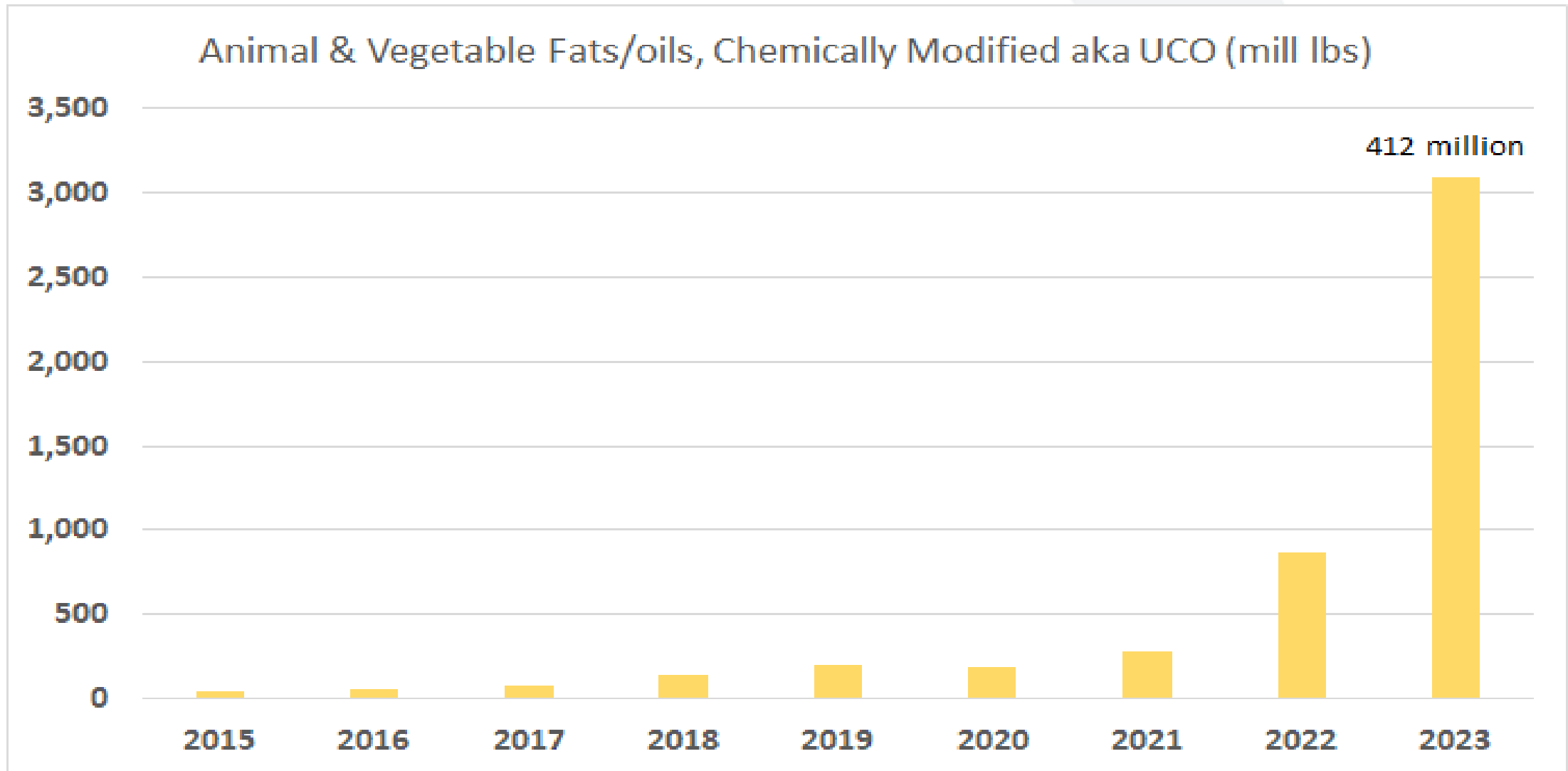
D Code	Low	High	Average
D3	0.4750	3.4300	3.1324
D4	0.3800	0.8200	0.5436
D5	0.3700	0.8100	0.5369
D6	0.3700	0.8100	0.5370
RVO			8.3660

D Code  Vintage  Year

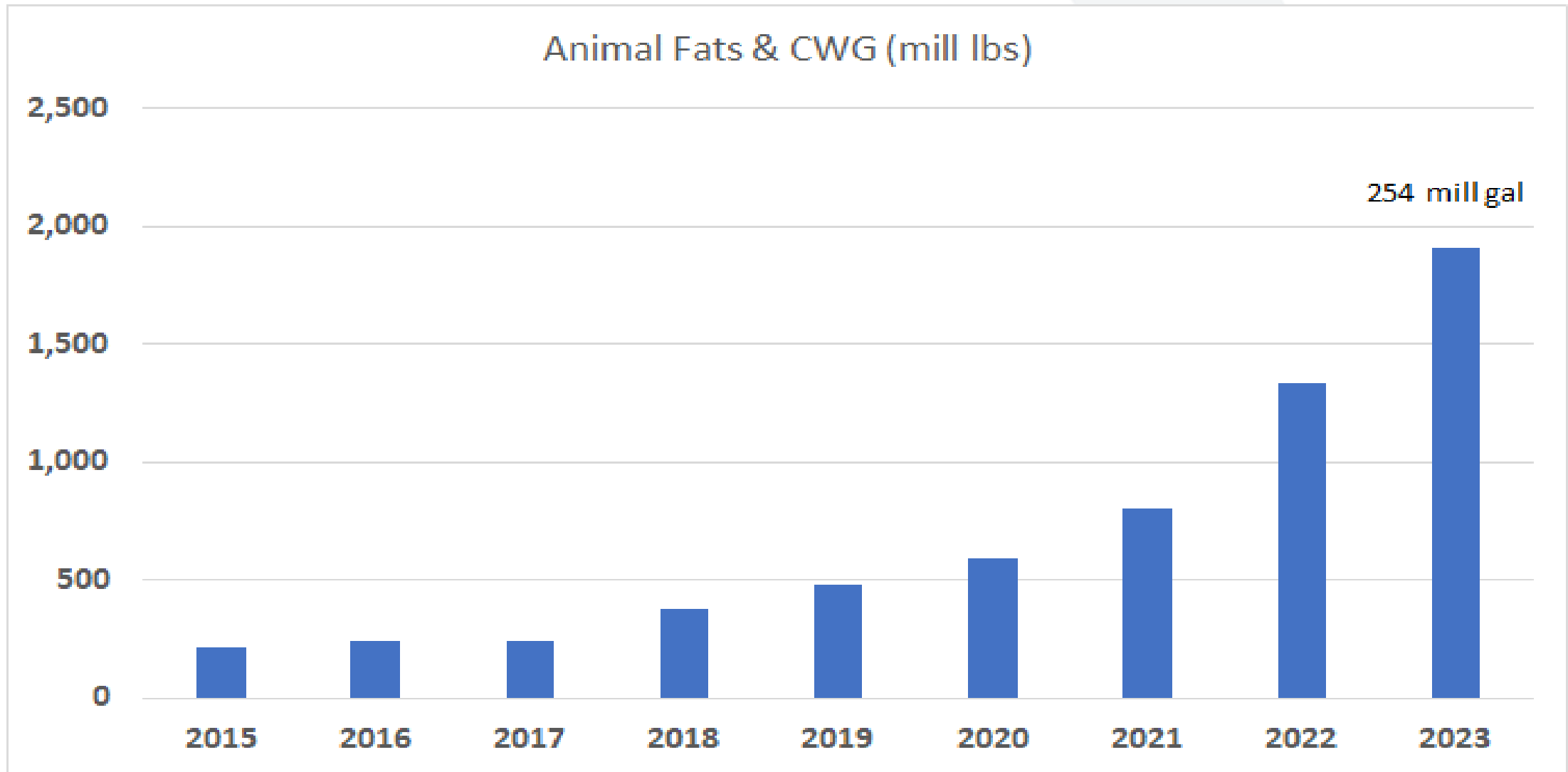
Clear selection  D4  2020 Vint.  2021 Vint.  2022 Vint.  2023 Vint.



# US Used Cooking Oil Imports



# US Animal Fat Imports



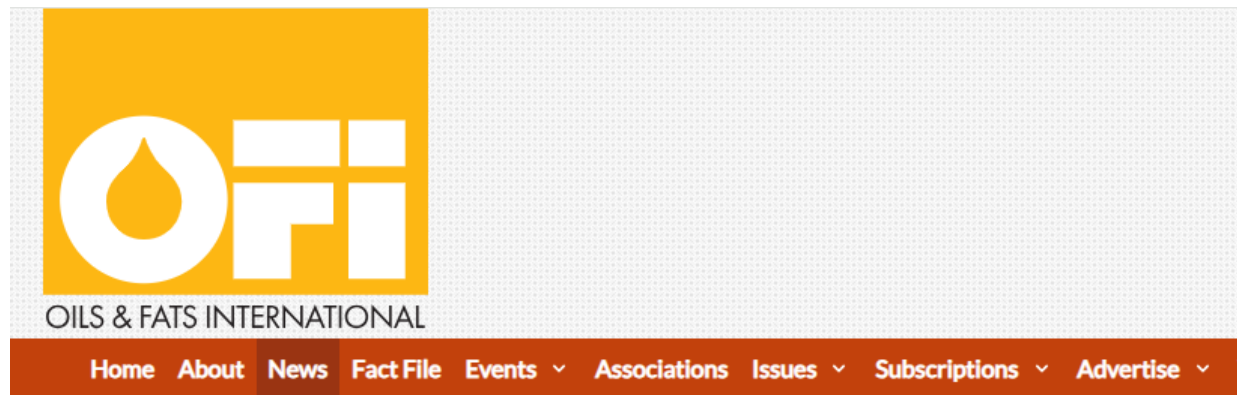
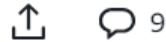
# Imports are a Threat to US Ag /Crush Investments

**Bloomberg**

## Suspicious of Fake China Cooking Oil Alarm US Biofuel Industry

Kim Chipman, Tarso Veloso and Michael Hirtzer

May 7, 2024 · 4 min read



US biofuel industry raises concerns about allegedly fraudulent Chinese UCO

Published 15th May, 2024

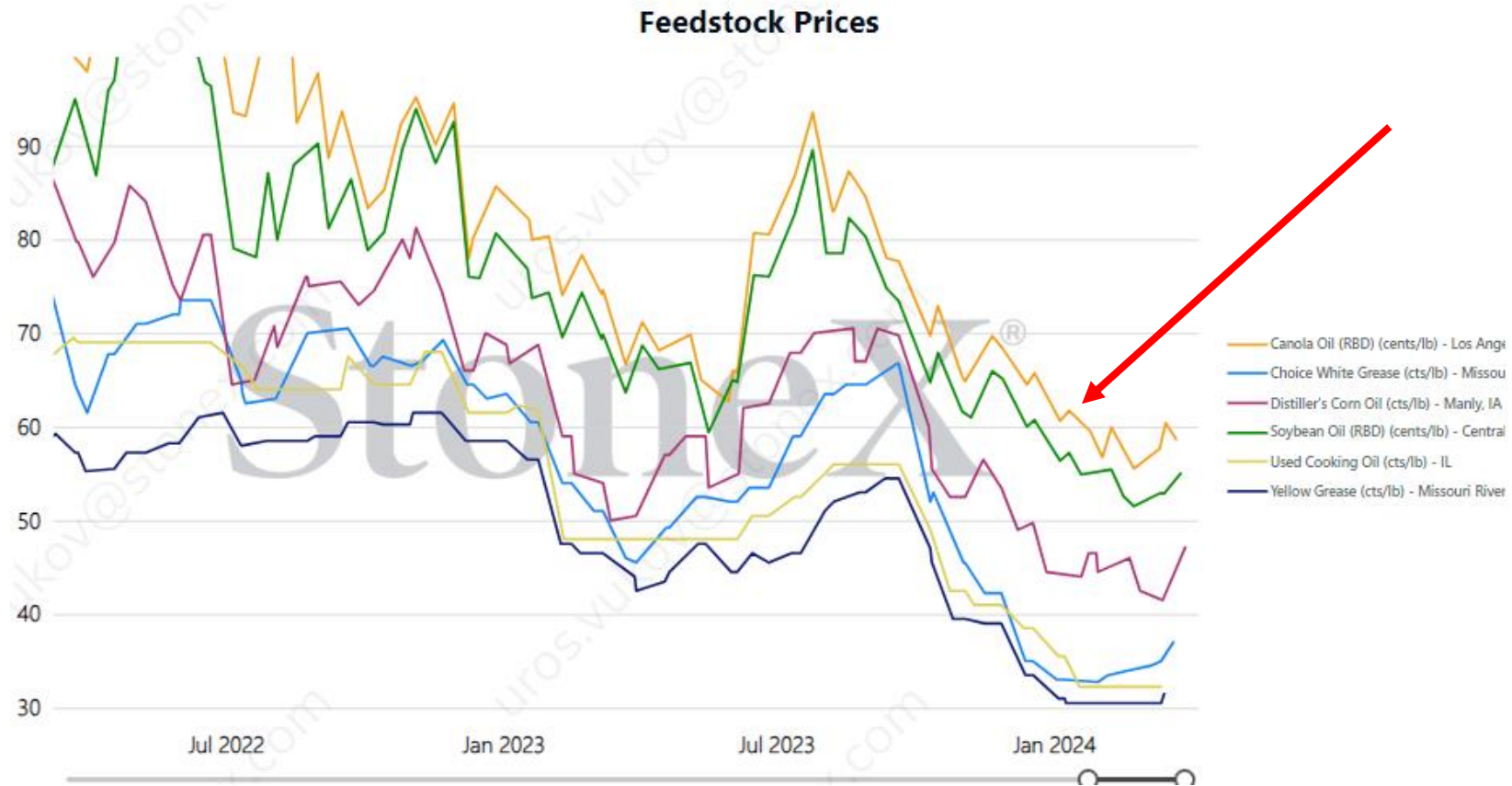
But Renewable Diesel Producers Love'em



## US Renewable Fuel Maker Defends Used Cooking Oil From China

- Darling Ingredients CEO says China is a legitimate supplier
- Soybean group says wave of imports is threat to US industry

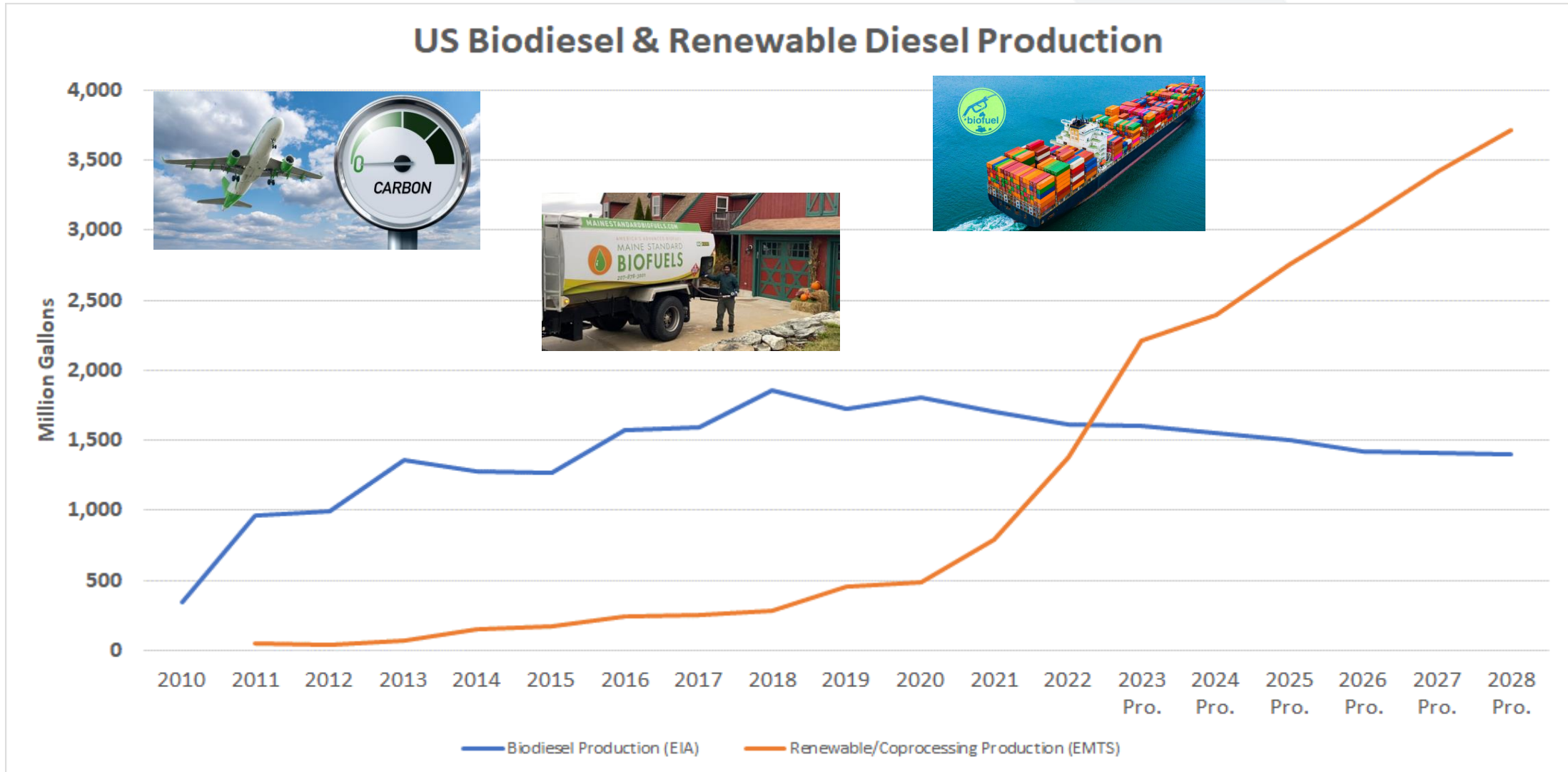
# Feedstock Prices



- UCO is the highest returning feedstock at the moment, followed by tallow and greases. Canola oil is the most expensive along with bean oil



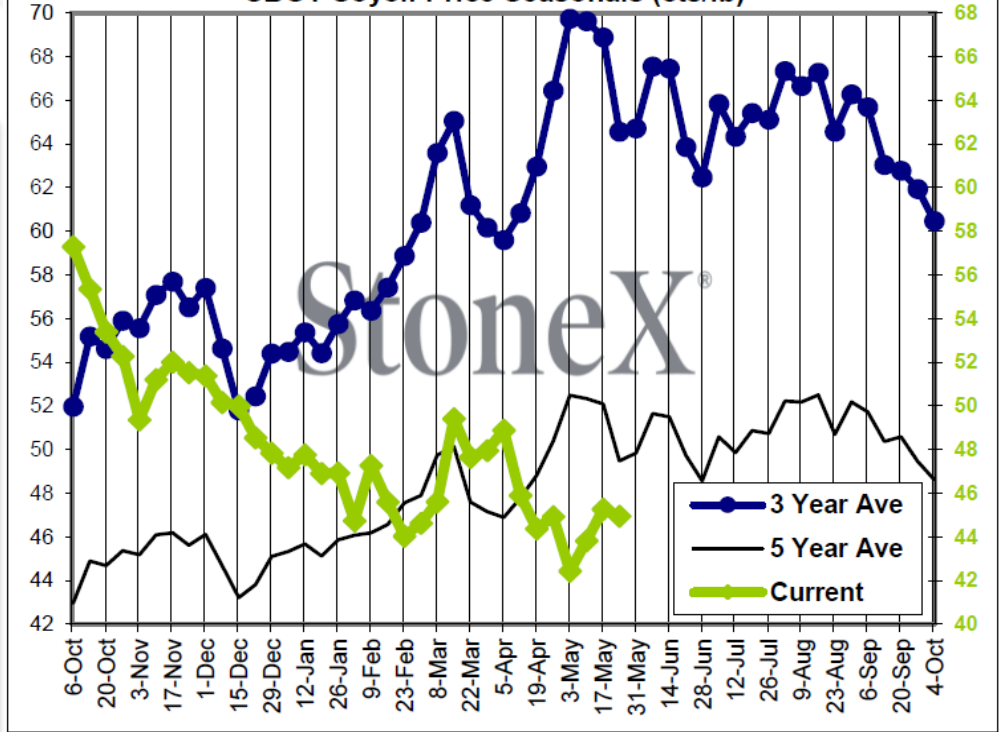
# Where To From Here?



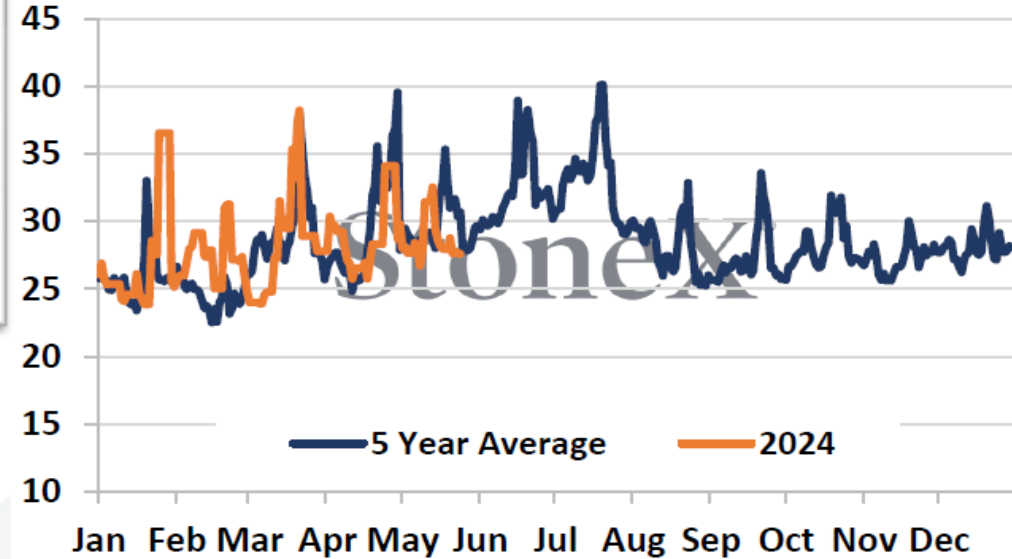
CBOT Soyoil Prices the Last 5 Years



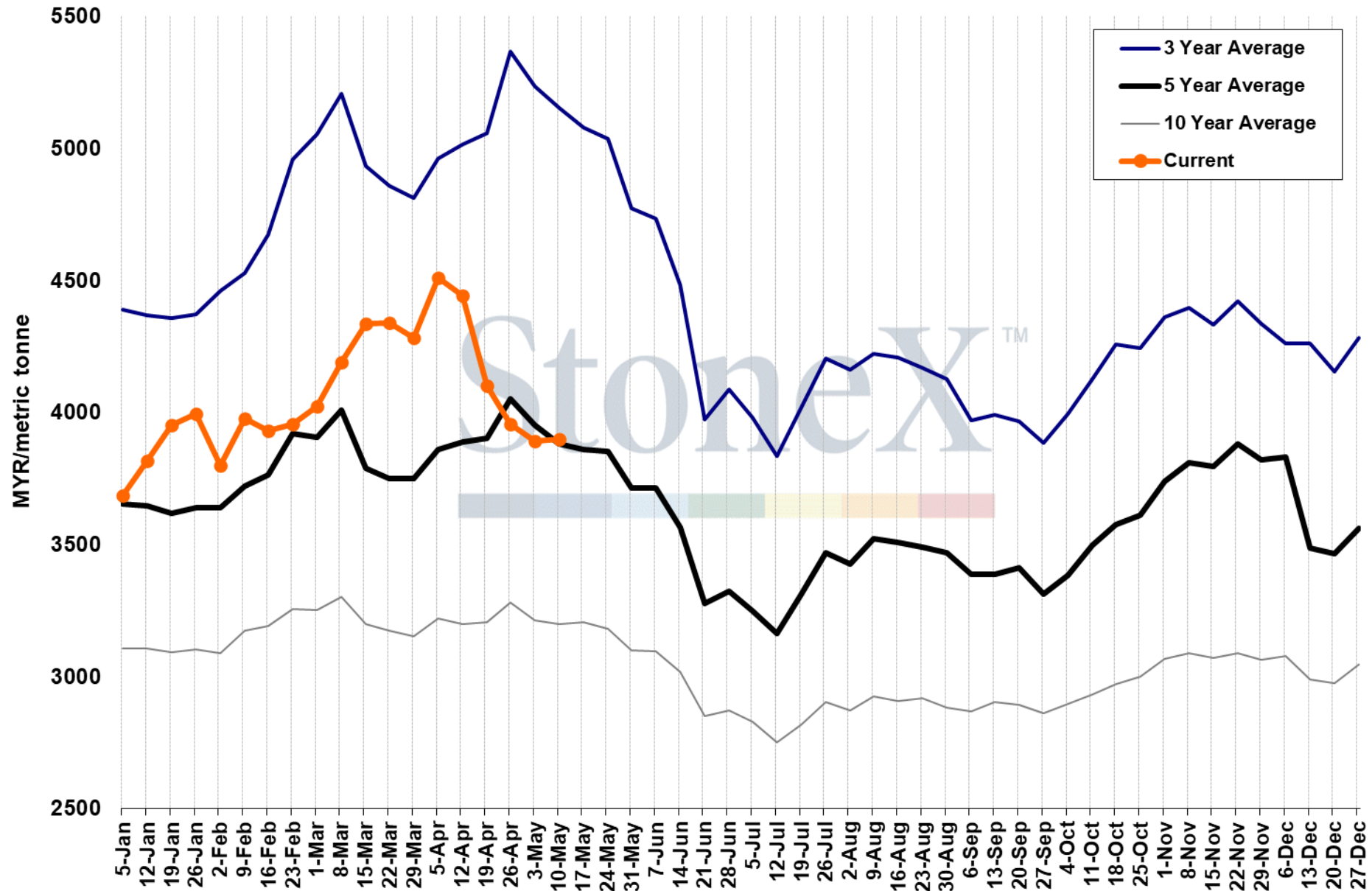
CBOT Soyoil Price Seasonals (cts/lb)



CBOT Soyoil Implied Volatility



# Malaysian Crude Palm Oil fob Spot Price - Annual Seasonal



# Conclusions

- Market expecting increases in vegoil availability
  - Weather permitting....
- Industry was quick to produce an increase in renewable fuels
  - Mandates have been shy of expected demand
  - Profitability margins have been squeezed – market consolidation
- SAF inclusion & limitations on imports could bring balance to the equation
- Markets increasingly susceptible to any shifts in S&D and/or external factors
- Crucial to maintain a conservative risk management policy in place
  - Access to financial tools and a close following of the market
  - The objective is to be proactive and not reactive to market price swings.



# Muchas Gracias

# 100+

## Years of experience

A member of the Fortune 100 with 3,200 employees, StoneX Group Inc., through its subsidiaries, has nearly 100 years of experience.

# 140+

## Currencies

StoneX Group Inc. offers currencies across 185 countries.

# 180+

## Countries

StoneX Group Inc. connects with clients in nearly 80 offices across 6 continents.

## Rodrigo Martínez

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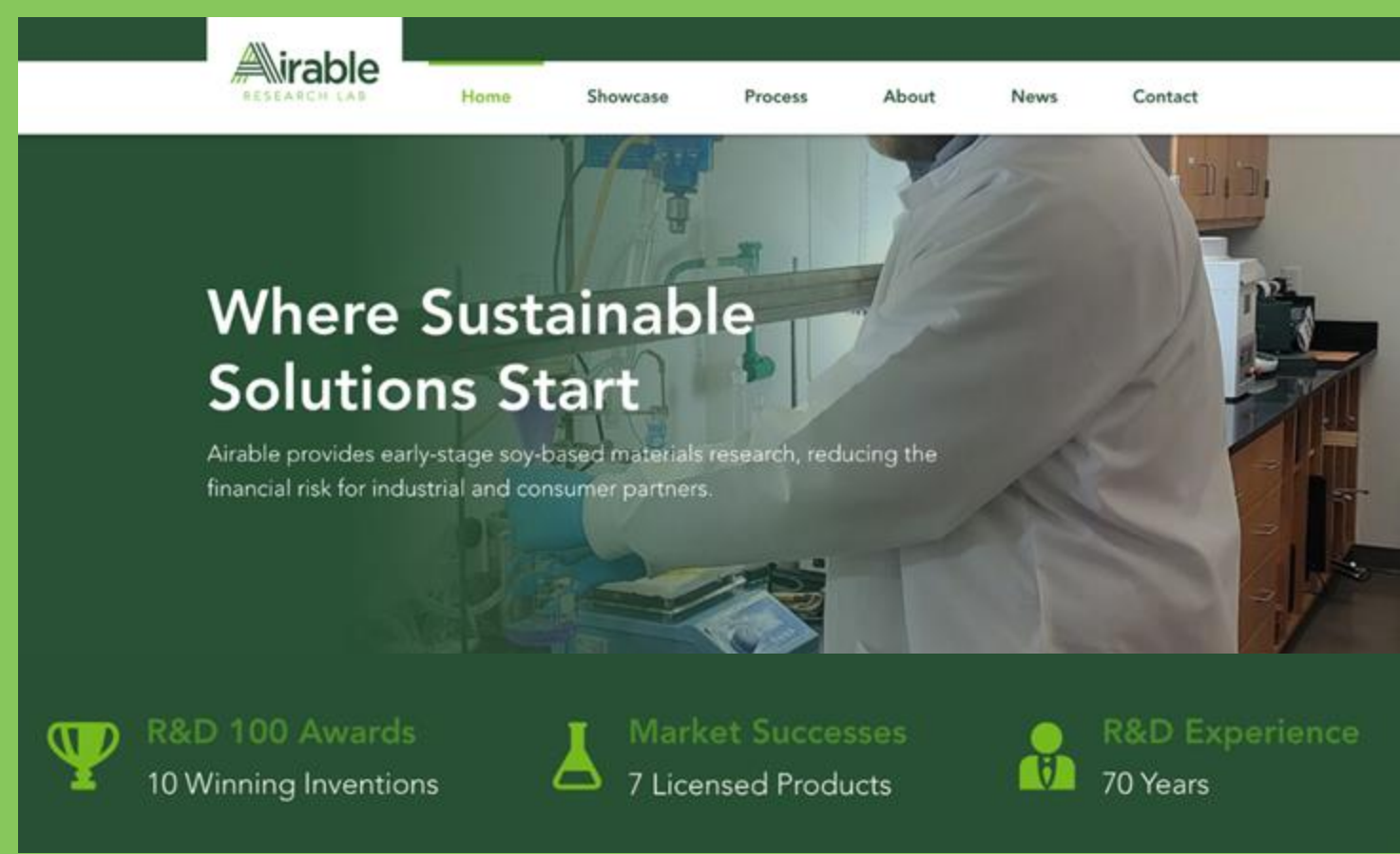
# About Airable

Launched late 2019, Airable provides early-stage soy-based materials research, reducing the financial risk for industrial and consumer partners.

OSC was founded in 1991

OSC's mission: Invest soybean checkoff funds to maximize the profit opportunities for Ohio soybean farmers

-  Technical experts
-  Lab facilities
-  IP Flexible
-  Customized research at no cost
-  Trusted long term partner





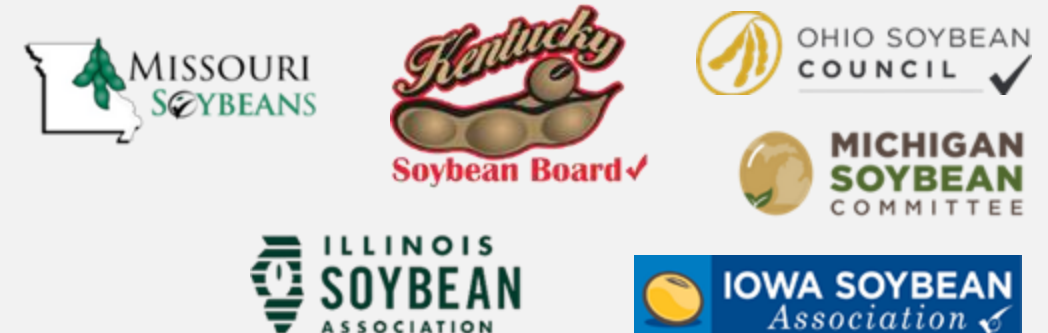
**Airable**  
RESEARCH LAB

Home Showcase Process About News Contact

## Where Sustainable Solutions Start

Airable provides early-stage soy-based materials research, reducing the financial risk for industrial and consumer partners.

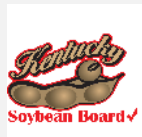
-  **R&D 100 Awards**  
10 Winning Inventions
-  **Market Successes**  
7 Licensed Products
-  **R&D Experience**  
70 Years




Explore more: <https://www.airableresearchlab.com/>

# Airable Research Lab Team

Lab Founder & Partners




**Barry**  
Chief Laboratory Officer




**Carla**  
Chief Financial Officer




**Phil**  
Relationship & Logistics Manager



**Dylan**  
Lead Chemist




**Robert**  
Senior Research Scientist



**Phoebe**  
Technical Communications



**Sue Graves**  
Business Development



**Alex**  
Engineer & Innovator



**Ethan**  
Chemist & Analyzer



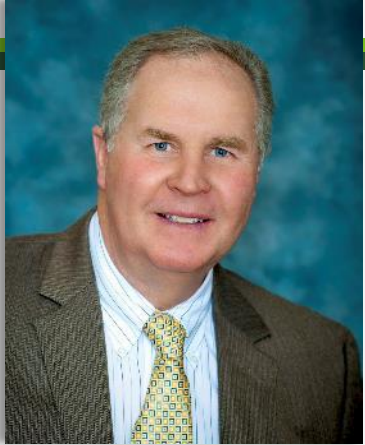
**Olivia**  
Chemist & Formulator



**Bethany**  
Surface Chemist



# ARL Board Leadership



**Keith Kemp**, Preble County



**Bill Bayliss (President)**, Logan County



**Todd Hesterman**, Henry/Fulton Counties



**Manoj Valluri**, Chemical Engineer & Senior Consultant at ARI



**Jerry Bambauer (Treasurer)**, Auglaize County



**Mike Feazel**, Roof Maxx Co-founder & CEO



**Nathan Eckel (Vice President)**, Wood County



**Jeff Magyar (Secretary)**, Ashtabula County

# WHY SOYBEAN?

**1**

**Sustainable**

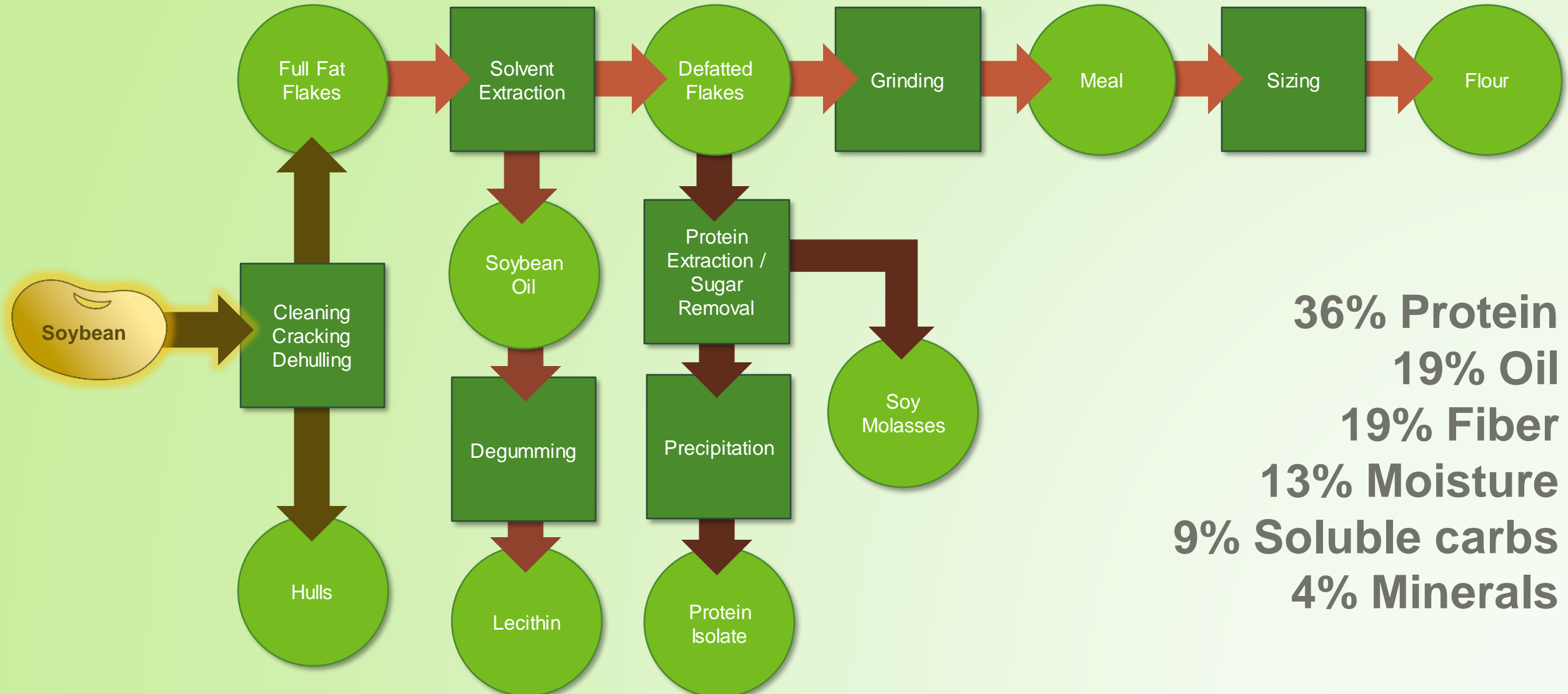
**2**

**Unique  
Chemistry**

**3**

**Cost  
Effective**

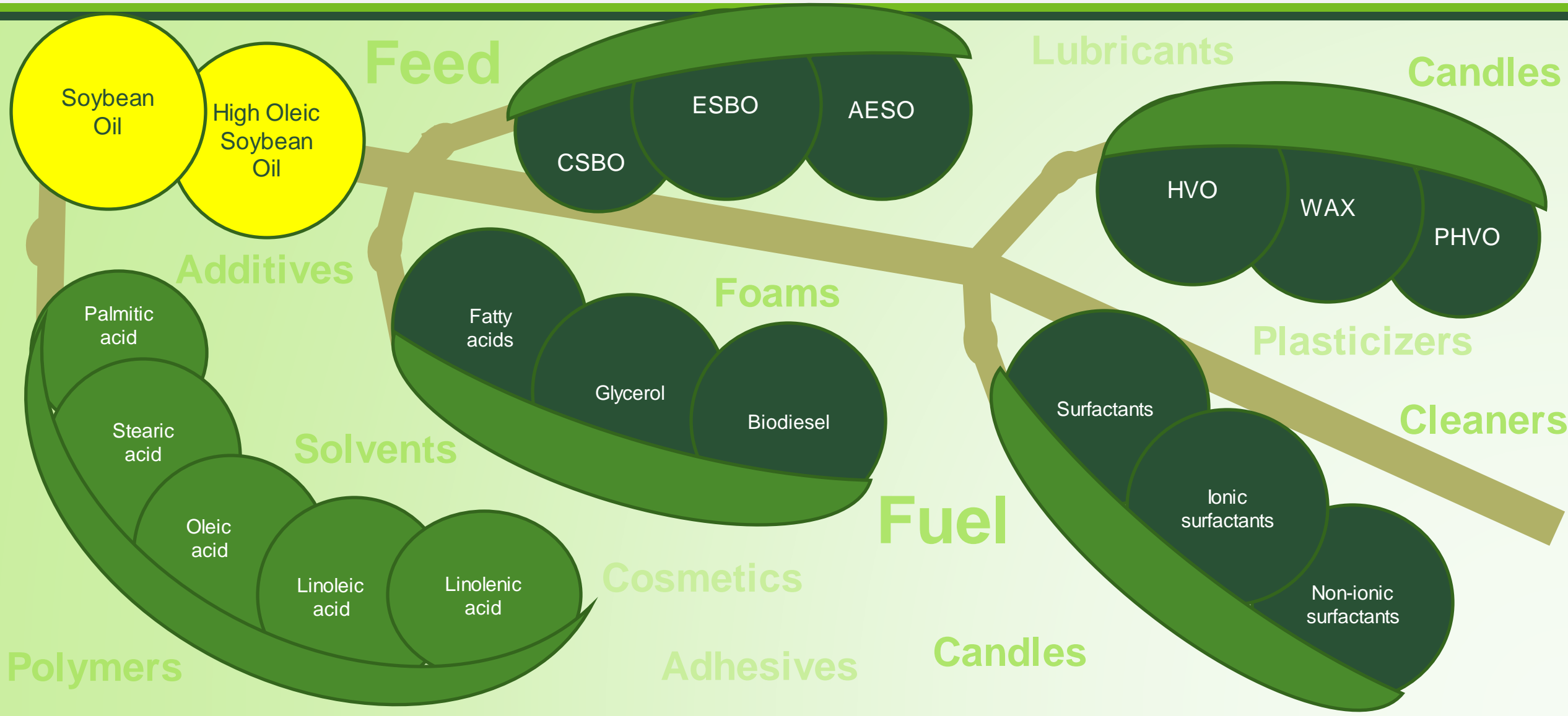
# Soybean Raw Materials



**36% Protein**  
**19% Oil**  
**19% Fiber**  
**13% Moisture**  
**9% Soluble carbs**  
**4% Minerals**

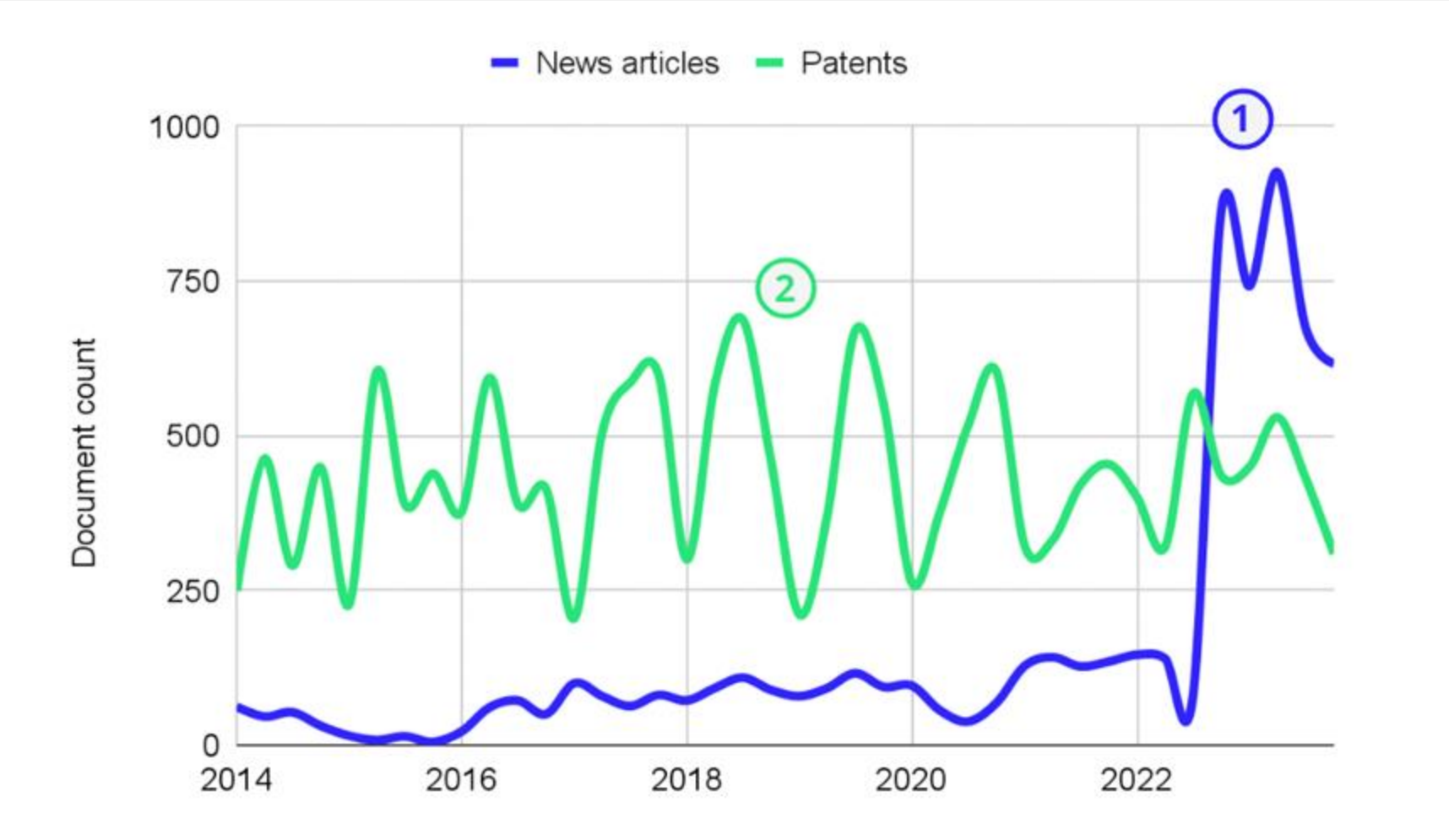


# Soybean Oil Coproducts and Applications

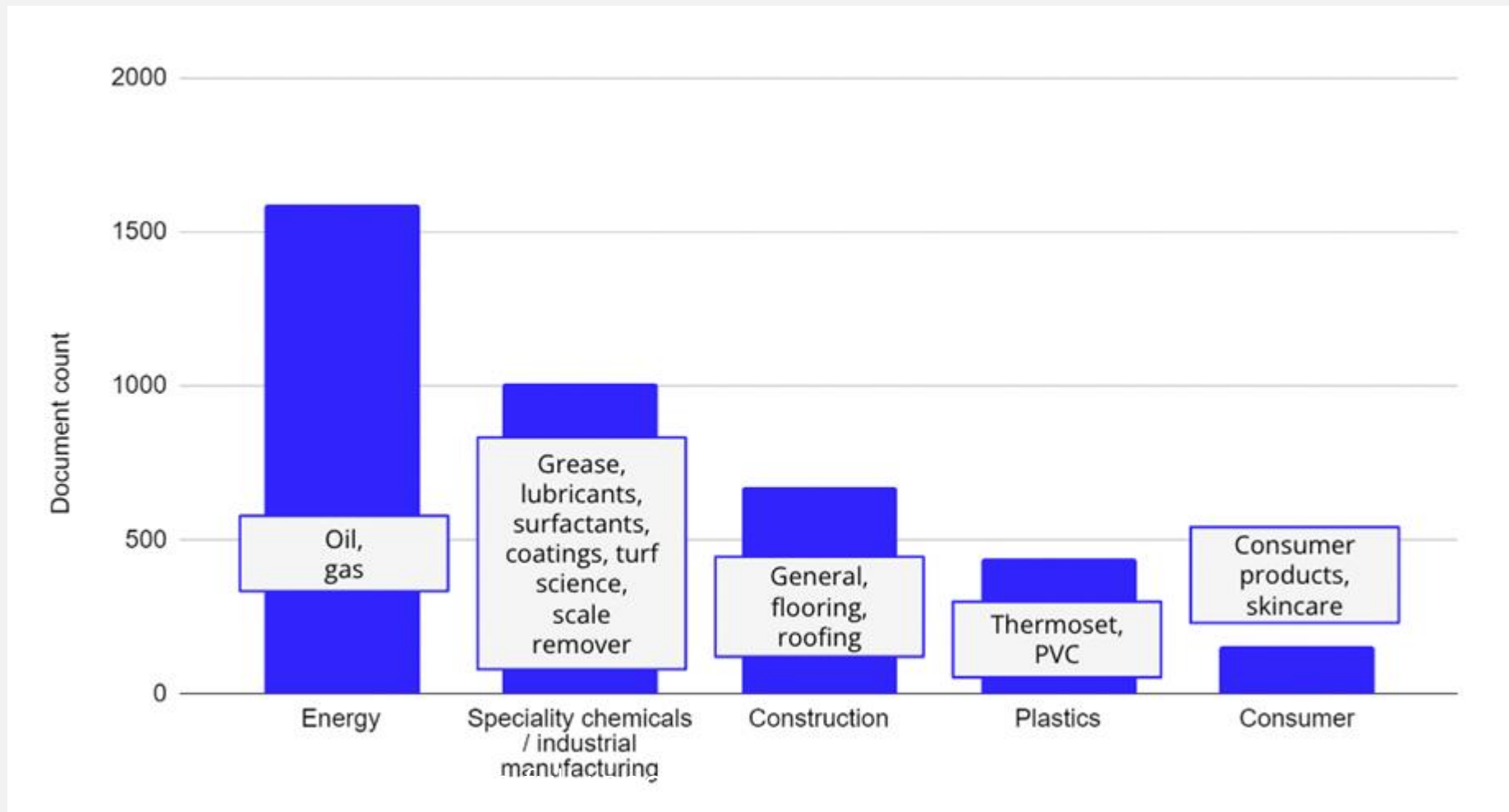




Since mid-2022, discussions surrounding soybean technology in news articles have peaked



There are multiple industries in a worldwide soybean discussions



# Why Airable



- ❖ Reduces upfront risk of R&D investments for companies
- ❖ Allows companies to tap into soy R&D ideas and/or proof-of-principle data
- ❖ Provides capabilities to assist industry in achieving their sustainability goals
- ❖ Provides the knowledge and/or resources to use soybean products to achieve commercial companies' sustainability goals
- ❖ Capitalizes on a bright future for the bio-based chemical industry

*Collaboration with Airable has been a great experience for our organization. Airable Research Laboratory's technical staff are experts in the field of soybean chemistry. Their management values their collaborations deeply and shows flexibility with corporations' evolving business needs and priorities. Our collaboration with them has yielded significant progress on understanding of the scientific challenge that we aimed to solve in a very short time. We look forward to continuing to work with their excellent team.*

- Commercial Partner

# Wax Coating Solution



Airable Research Lab and Gear Head Lube partnered to identify a commercial soy-based wax formulation that provides an alternative to petroleum-based microcrystalline wax. Gear Head is using the bio-based wax in its fifth wheel lubricant product.

## THE CHALLENGE

Gear Head's fifth wheel grease pads are a simple and effective way to handle and apply grease to trucks' coupling joints. The pads have a paraffin wax coating that allows them to be conveniently packed in boxes. The grease can be applied by hand (no tools needed).

## THE SOLUTION

Airable identified an appropriate soy-based wax grade that proved better for this application. Soybean oil can be fully hydrogenated, increasing the melting onset point and crystallinity. The processing yields a wax with a higher melting temperature and thermal stability than partially hydrogenated oils typically used in food, candles, or personal care products. Airable formulated the soy-based wax into a usable product that provides a durable, water-repellant coating that is easier to handle and store in warm-to-hot ambient temperatures.

## THE VALUE

- Free of petroleum-based paraffins
- Higher melting onset temperature
- 100% bio-based carbon
- Made from widely available renewable resources
- Durable
- Water-repellant



“I'm a mechanical engineer, so it was great to have access to the wealth of soy-based chemistry knowledge Airable provides. And as a small business owner, it was a refreshing change to have outside support. I really appreciate Airable's approach to increasing bio content while adding practical value.

Todd Whiting, Director of Product Development, Gear Head





# DeWALT Bar & Chain Oil

- ❖ First bar & chain oil to be certified ultimate biodegradable
- ❖ First consumer shipment in May 2022
- ❖ Will be in 1,600 Home Depot stores by July 2024



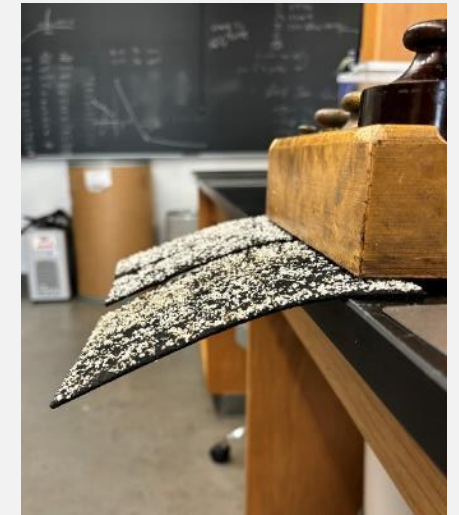


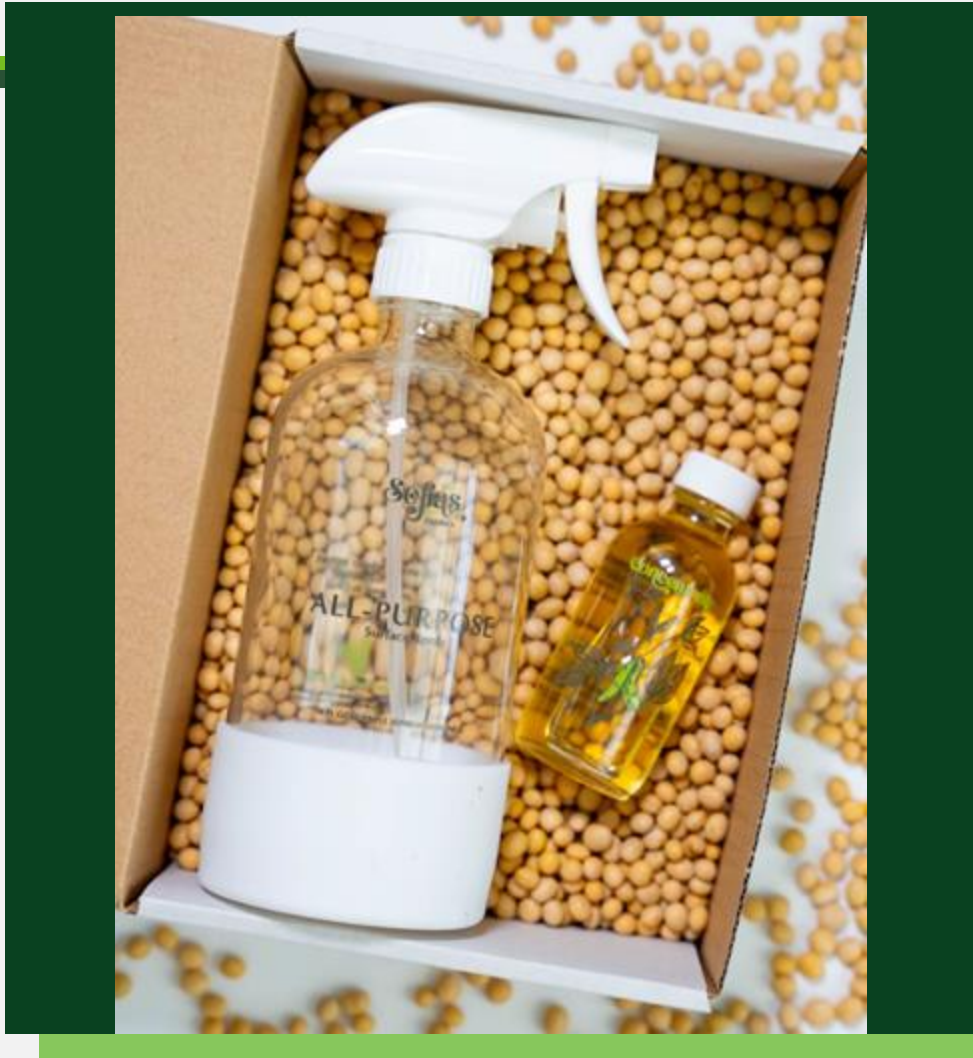
# Roof Maxx roof

# shingle sealer-rejuvenator



- ❖ Airable is developing added functionality to RM's current product and developing a potential new product:
  - Cleanability function, large field trials in progress (market differentiator!)
  - Rejuvenate SBS-modified shingles, early-stage development (increases market size!)





# Sofia's Soy Cleaner

**Sofia's**  
SOY  
CLEANER



# Oil and Gas Industry Licenses:

## *Non-Phosphorus Scale Inhibitor and Lubricant*

### Non-Phosphorus Soy-Based Scale Inhibitor

- ❖ Alternative to soy-based scale-inhibiting additive developed in 2022 through partnership with LFS Chemistry
- ❖ Prevents the buildup of calcium scale in water systems
- ❖ Addresses issues of overexploitation of phosphorous and pollution of our waterway
- ❖ Highlights
  - Highly miscible with water
  - Scale inhibition efficiency of up to 90%
  - Bio-based, with 80%–90% renewable bio-based carbon
  - Cost-competitive with commercial scale inhibitors
  - Domestic feedstocks

**FARM TO WELLHEAD®**

### Coiled Tubing Lubricant for O&G

- ❖ Required for down-hole drilling applications
- ❖ Engineered to:
  - Withstand high pressure
  - Demonstrate effectiveness at low loadings
  - Create a stable emulsion in saltwater solutions
- ❖ Biobased composition exceeding 90% Commercialization underway
- ❖ LFS estimates sales to be 1 million pounds annually
- ❖ Market size >5M gal/yr. of lubricants for Texas alone





# Soy-Based Severe-Duty Grease



Airable Research Lab has developed a soy-based grease that can withstand severe-duty conditions (e.g., resistance to extreme temperatures, corrosion, and chemicals). The Airable formulation meets requirements for both severe-duty wheel bearing and severe-duty chassis applications. This bio-based formulation can displace petroleum-based oils and similar synthetic fluids and will meet USDA bio-preferred specifications.

## THE TECHNOLOGY

The formulation starts with high oleic soybean oil, which is inherently more resistant to oxidation than regular soybean oil. Various additives—e.g., lithium thickeners, antioxidants, corrosion inhibitors, lubricity aids, extreme-pressure anti-wear additives, and water-resistance additives—allow the soy-based grease to meet the numerous tests required for use in severe-duty applications. The grease can be formulated with commercially available raw materials and without synthesis, allowing for a fast path to market.

The Airable product meets National Lubricating Grease Institute (NLGI) standards for a #2 GC-LB grade grease and is competitive with current high-performance commercial greases.

## STATUS

Feasibility testing was completed in Q4 2023. This project is currently in prototype development and testing.

## BENEFITS

- Compliant with USDA renewable carbon requirements
- Good temperature stability and high temperature life
- Minimal oil separation at high temperatures
- Low temperature torque
- Rust protection
- Wear and extreme pressure resistance
- Compatible with common gasket elastomers
- Similar in consistency to commercial oil-based products
- Commercially available ingredients
- Formulatable without synthesis

# 2024 Soy Products



## Penetrant

Client/Market

Stanley Black & Decker brands

### Current Stage

- Procuring components and packaging while completing stability testing
- The aerosol version with can and straw has a **16-week** lead time
- Trigger version will be **3-4** weeks after bulk
- Expected bulk production (not packaged) by **early March**

Estimated Date of First Sell

Potential Quantity Sold in Year 1



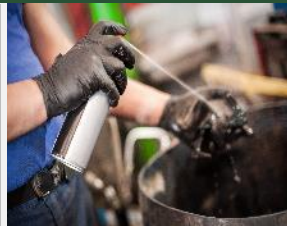
April

100K

### Potential Brands and Stores



- We have about **500** truck commitments for Mac.
- DEWALT starts on Amazon to drive demand/acceptance.



## Multi-Use Oil

Client/Market

Stanley Black & Decker brands, others

### Current Stage

- Procuring components and packaging
- Built **400** sample units that are being distributed out to operators, partners, and salespeople in **Jan/Feb**

Estimated Date of First Sell

Potential Quantity Sold in Year 1



March

150K

### Potential Brands and Stores



## Leather Paste/Conditioner

Client/Market

Consumer market

### Current Stage

- Working on manufacturing partners, expected to close in **3-6 weeks**
- Working through process, MOQs, pricing and testing QC

Estimated Date of First Sell

Potential Quantity Sold in Year 1



June

15K

### Potential Brands and Stores



# A SUSTAINABLE FUTURE TOGETHER

Airable is at the forefront of soy-based R&D, working with commercial and industrial clients to develop materials and final products.

We conduct proof-of-principle research at no cost to our clients, reducing the upfront risk of soy-based product development.



providing tailored soy-based solutions to industrial & companies



Thanks!









The background of the slide features a close-up photograph of a burlap sack overflowing with yellow soybeans. In the foreground, a glass Erlenmeyer flask is partially filled with bright yellow soybean oil. A thick, curved yellow graphic element sweeps across the bottom right of the image. In the top left corner, the 'SOY' logo is displayed in a bold, white, sans-serif font, with the tagline 'Delivers Solutions' in a smaller font below it. To the right of the 'SOY' logo is the 'USSEC' logo, which consists of the letters 'USSEC' in a white, sans-serif font with a stylized arc above the 'E' and a small circle to its right.

**SOY**  
Delivers Solutions

**USSEC**

## “High Oleic Soybean Oil- Quality Driving Value”

I.Q. Jorge Martínez

[jmartinez@ussec.org](mailto:jmartinez@ussec.org)

May, 2024

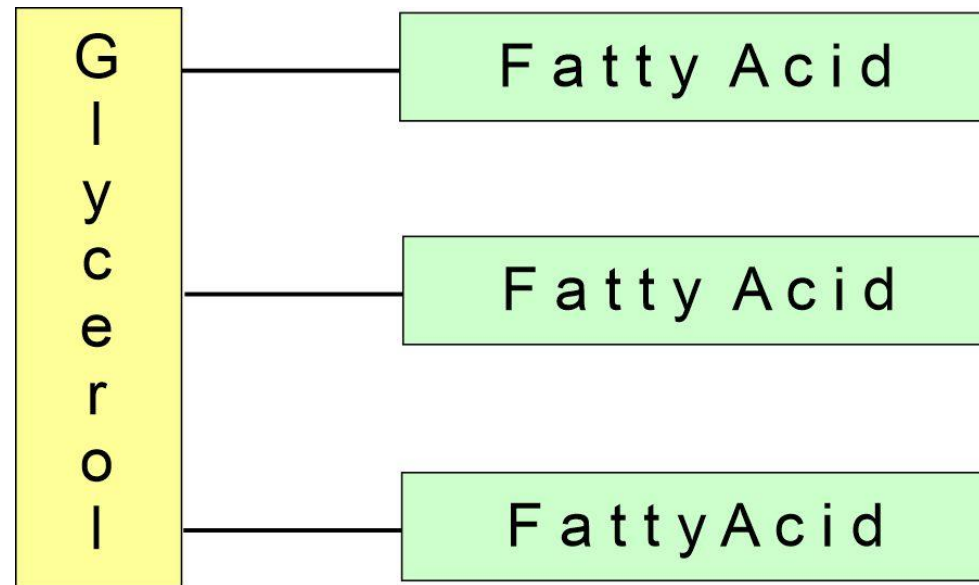
# Overview

- ❑ Some concepts on fats and oils characteristics
- ❑ Present a resume of the characteristics and functionality of U.S. High Oleic Soybean Oil (HOSBO) in food service frying applications.
- ❑ Present the results of a frying test with a blend 50:50 of HOSBO/Conventional SBO in a food service chain.

# Classification of fats and oils

Edible fats and oils are made up of triglycerides that contain three fatty acids linked to a glycerol molecule.

Fatty acids according to the number of unsaturations or double bonds they contain can be classified into the following groups:





# Saturated



Butter

Palmitic and stearic acids

# Monounsaturated



Olive Oil

Oleic acid

# Polyunsaturated



Conventional SBO

Linoleic and linolenic acids

# What is HOSBO?

It is the oil produced by soybeans of the variety “High Oleic”.

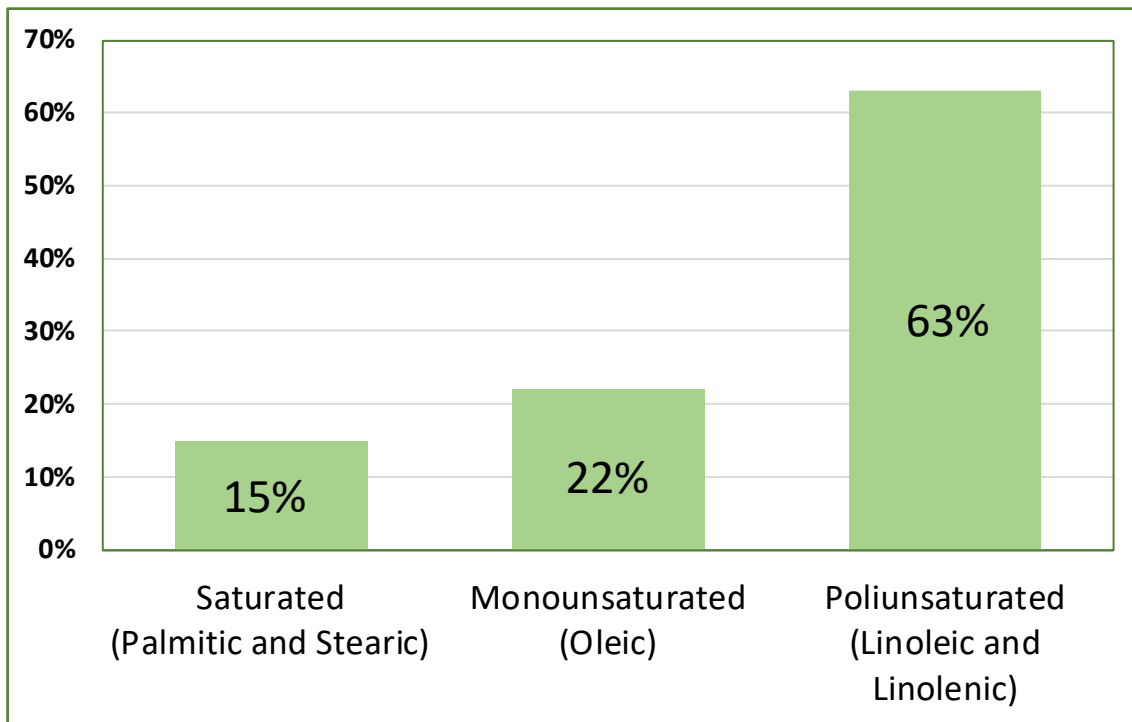
It has a composition or fatty acid profile different from that of conventional soybean oil.

HOSBO has a higher content of Oleic acid and less content of Linoleic and Linolenic fatty acids than conventional SBO.

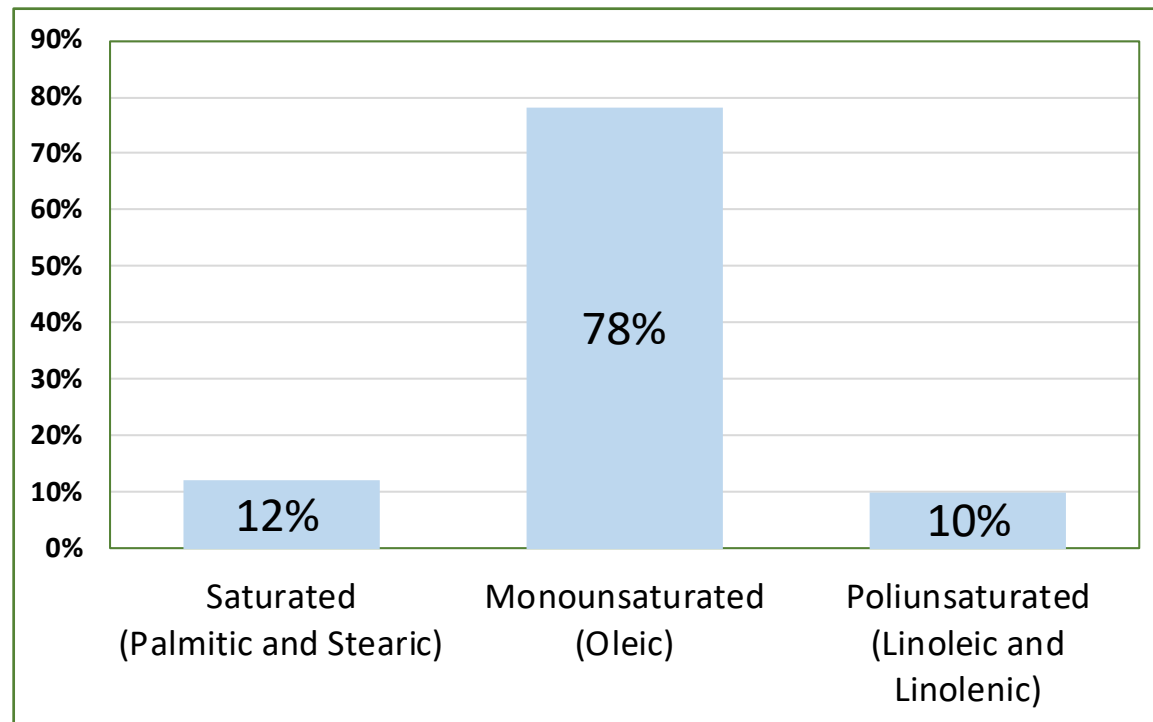


# What is HOSBO?

## Conventional SBO



## High Oleic SBO



# Oxidation in Frying Oils

The oxidation of fatty acids in oils is one of the main factors that causes the degradation of frying oils and also produces bad taste and odor (rancidity).

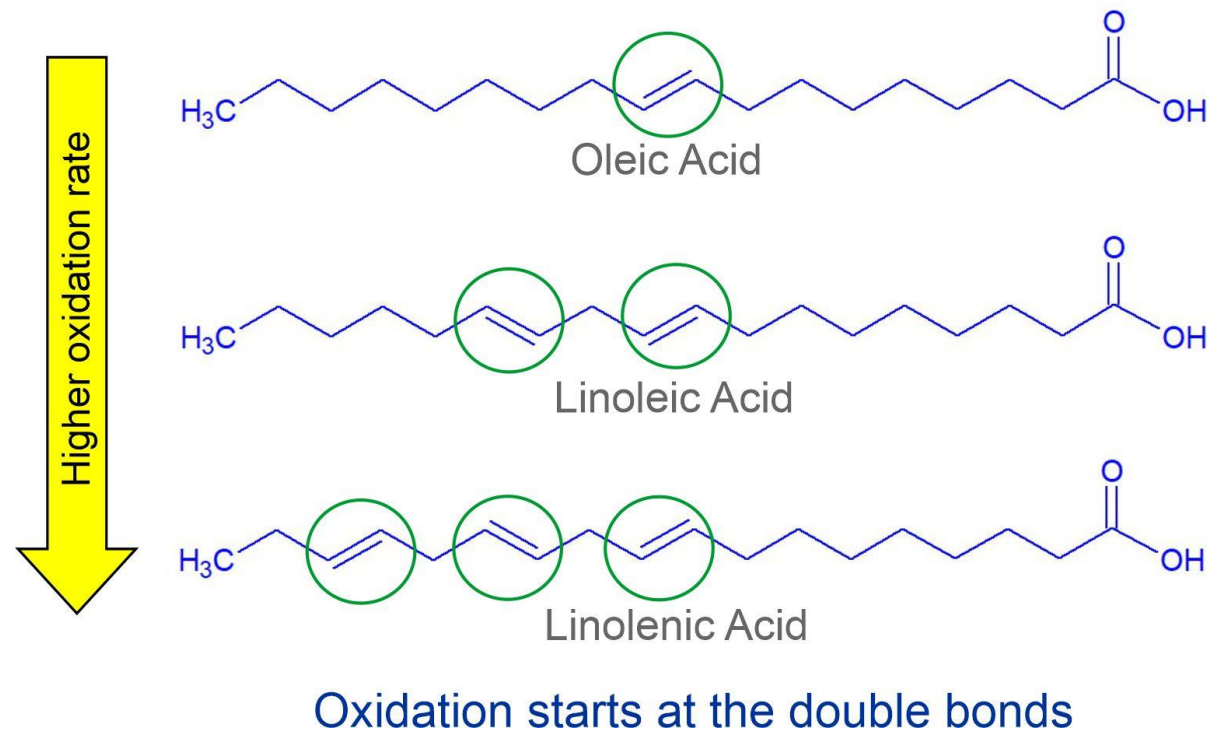
A frying oil that oxidizes easily will have poor resistance to high temperature and continuous frying.



# Oxidation in Frying Oils

**Linoleic** and **linolenic** fatty acids in oils are more susceptible to oxidation than **oleic** fatty acid. (They oxidize faster than oleic acid).

The higher content of **linoleic** and **linolenic** fatty acids in an oil, the lower heating resistance.



# HOSBO is more resistant to temperature and oxidation

Due its fatty acids content, HOSBO is more resistant to temperature and oxidation than conventional SBO and other frying oils.

Furthermore, due to its content of tocopherols, which are natural antioxidants, HOSBO does not require the addition of synthetic antioxidants or additives to provide additional to protection to oxidation.

# Performance of HOSBO in Food Service

- ❑ Longer fry life compared to conventional SBO and other frying oils.
- ❑ Fewer oil changes which means lower labor and oil costs.
- ❑ Cleaner / less oily flavor profile from reduced oxidation
- ❑ Reduced foaming in friers



# Performance of HOSBO in Food Service

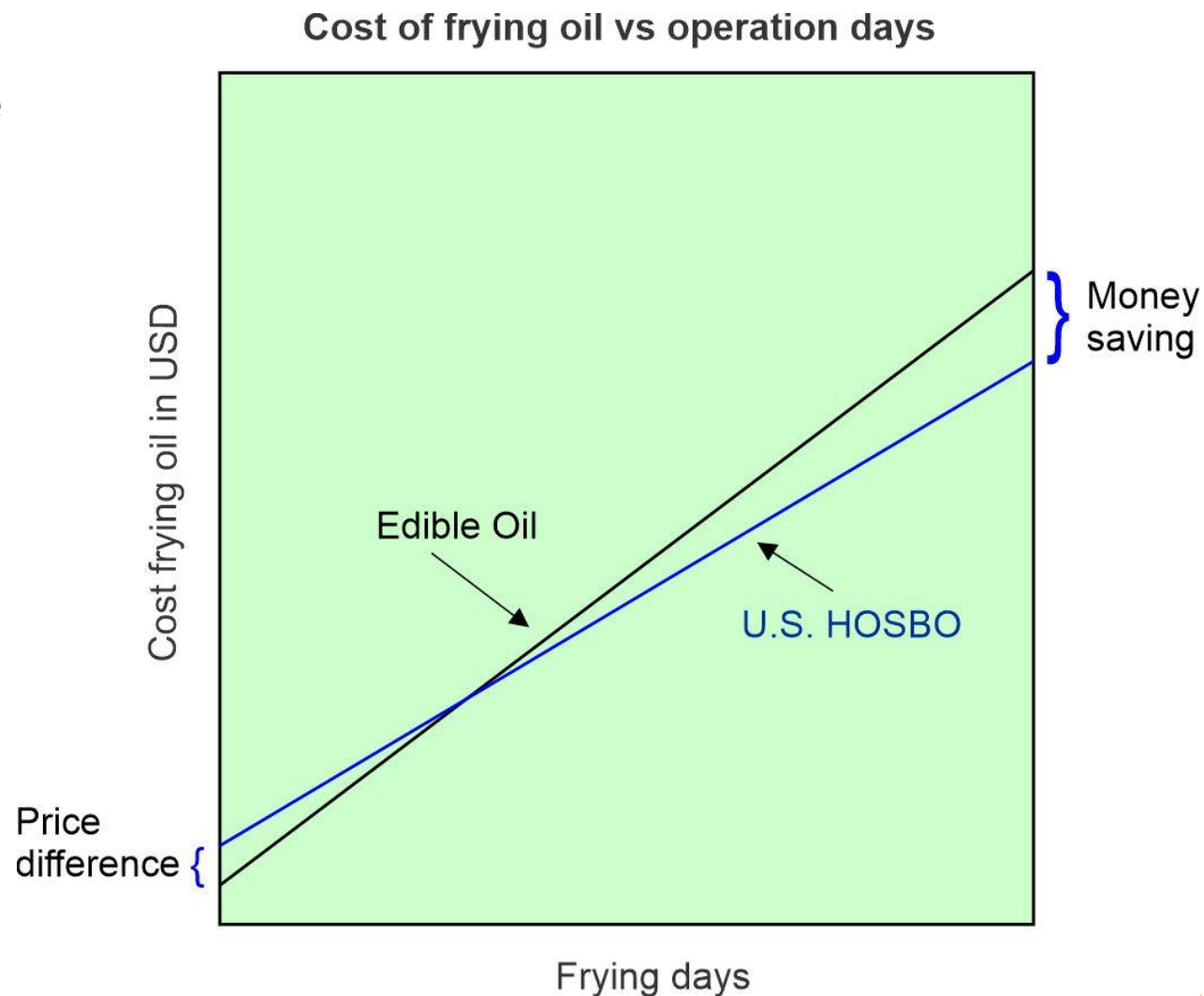
- ❑ Easier Cleaning due the reduced polymer formation on cooking surfaces, less gummy buildup
- ❑ Does not contain trans fats as other partially hydrogenated frying oils.
- ❑ Cleaner Ingredient Labels because enables removal of synthetic antioxidants such as TBHQ.



# Economic Benefit of U.S. HOSBO in Food Service

HOSBO is more expensive than other frying oils, but since it has a longer fry life fewer oil changes in the fryer are necessary.

Therefore after some days of operation the cost of oil will result lower.



# Economic Benefit of U.S. HOSBO in Food Service

Blends with HOSBO can optimize cost versus performance. For example with conventional SBO (as in this study) when highest performance is not needed.



# The Frying Test

## Objective:

Determine the frying performance and the economic benefit of a blend of 50:50 U.S. High Oleic Soybean Oil (HOSBO) and conventional Soybean Oil (SBO) over another frying oil used in a food service chain.

# The Frying Test

The test was carried out in a restaurant of a food service chain in Costa Rica on June 2023.

The frying oil used in the restaurant was composed of a blend of soybean, sunflower, palm oils and antioxidant and antifoaming additives.



# Development of the frying test

Composition of the frying oils used in the test:

Component	Restaurant Oil	Blend HOSBO/SBO
% Saturated fatty acids	20	14
% Monounsaturated fatty acids	30	48
% Polyunsaturated fatty acids	50	39
TBHQ (ppm)	200	0
Dimethylpolysiloxane (ppm)	10	0

# Development of the frying test

The restaurant has three fryers with a capacity of 20 kg of oil each.

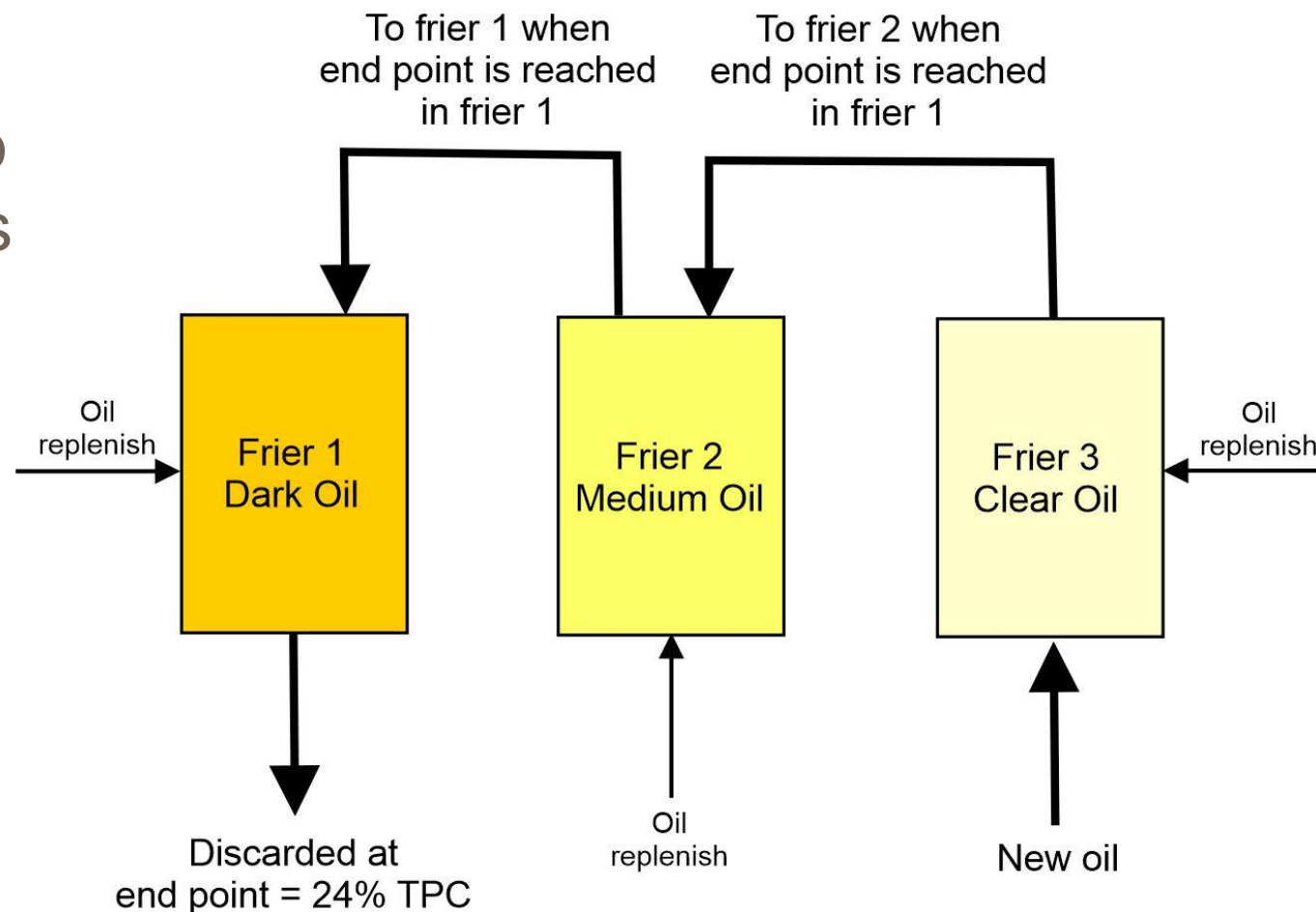
One fryer is used for products that darken the oil the most such as banana and chicken strips.

The other fryer is used for French fries and other products that do not darken the oil as much (referred to as “medium oil”).

The third fryer is used for “clear oil” in an alternative fashion depending on the work load.

# Development of the frying test

When the dark oil is discarded, the medium oil is transferred to the dark oil fryer, the clear oil is transferred to the medium oil fryer, and the clear oil fryer is filled with new oil.



# Development of the frying test

Each morning before starting the operation, if necessary, the fryers are replenished with new (fresh) oil. That amount of oil is equal to the amount of oil absorbed by the fried foods.

The frying temperature was 168.33°C (335°F) and the parameter used to determine the end point of the oil in the fryers was TPC = 24%.



## Development of the frying test

We made the TPC determinations in all of the fryers using a TPC digital meter under the brand “Testo”.

The TPC measurements were done every day at the frying temperature in the morning before starting the operation, but some of them were done during the afternoon.



# Development of the frying test

We started the test on June 1st and filled the three fryers with new oil of the blend of HOSBO/SBO.

We ran the test for 14 days at which point the blend of HOSBO/SBO available was finished.



## Development of the frying test

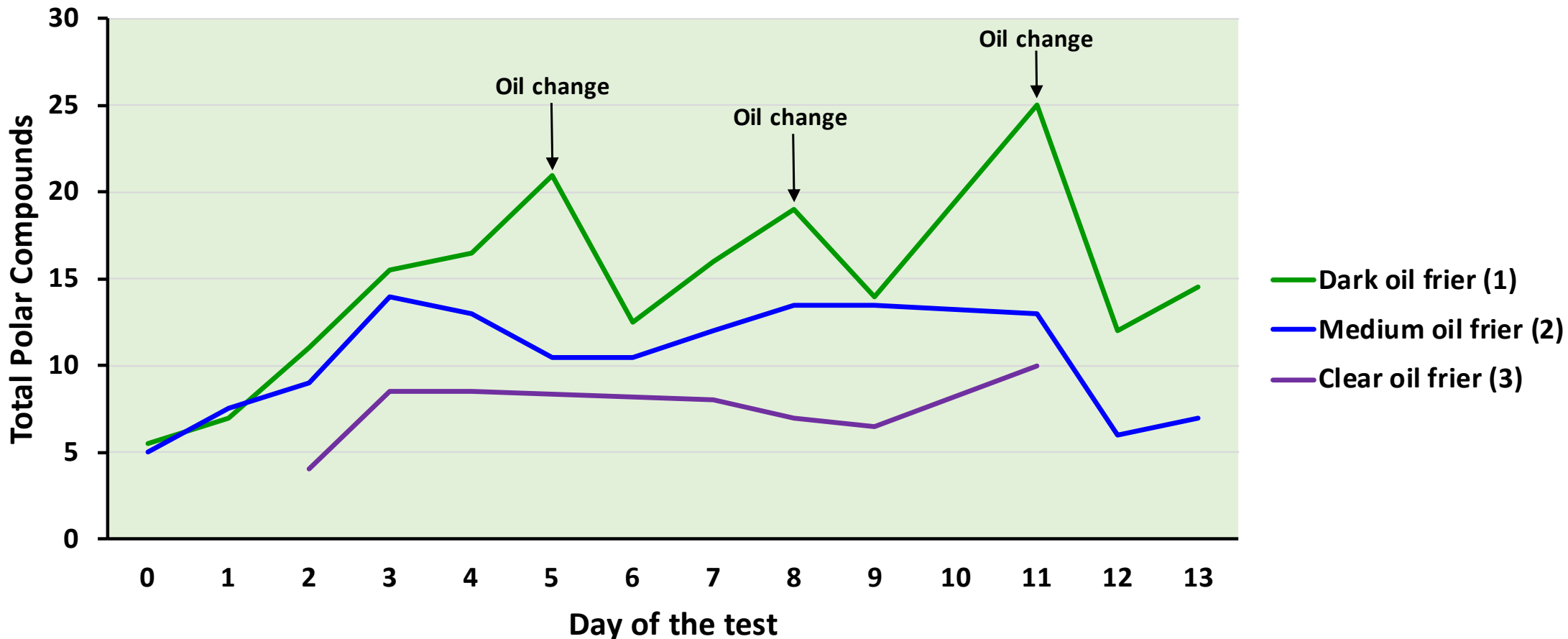
In the morning of June 15 started the test with the oil that the restaurant usually uses for its operation.

That day the three fryers were filled with new restaurant oil and the test was run under the same operation conditions as was done with the blend of HOSBO/SBO.

The TPCs and the replenished oil in the fryers were measured in the same way as with the blend of HOSBO/SBO. The test with the restaurant oil was run for 14 days.

# Development of TPC in the HOSBO/SBO blend

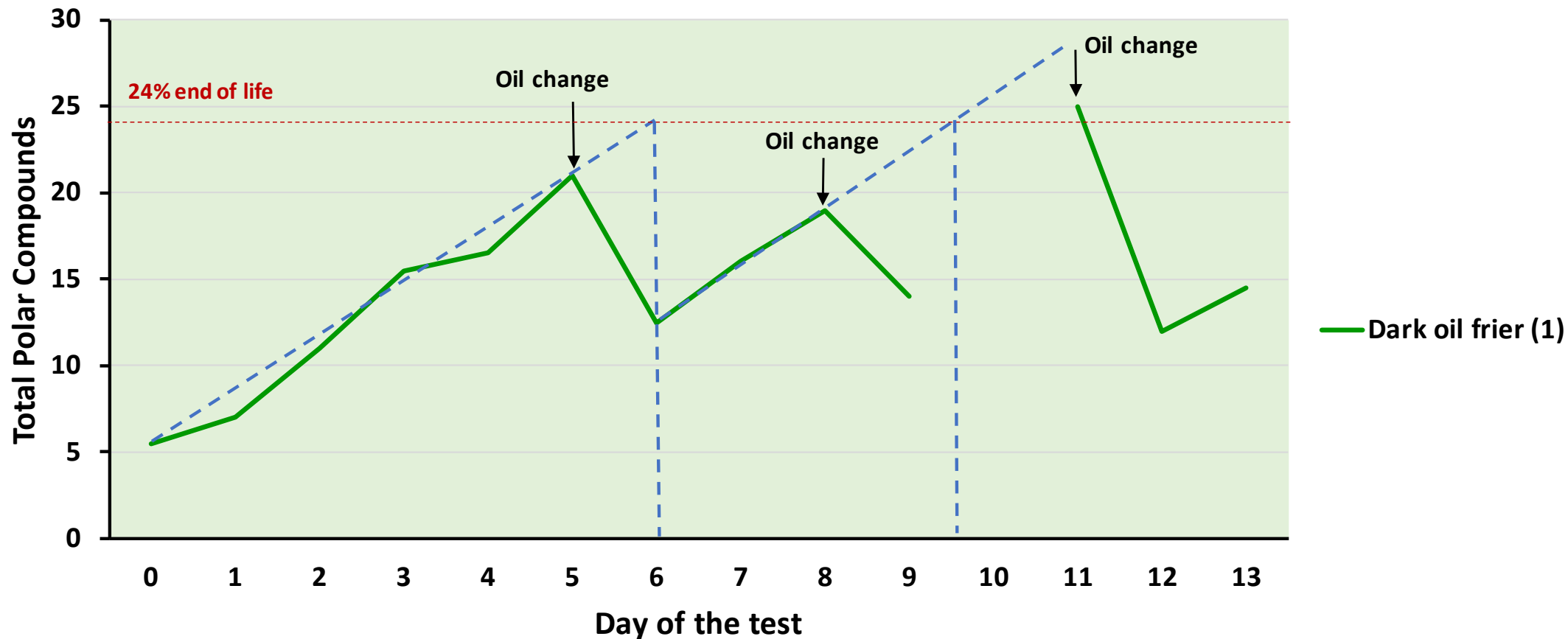
Blend HOSBO/SBO Development of Total Polar Compounds (%TPC)



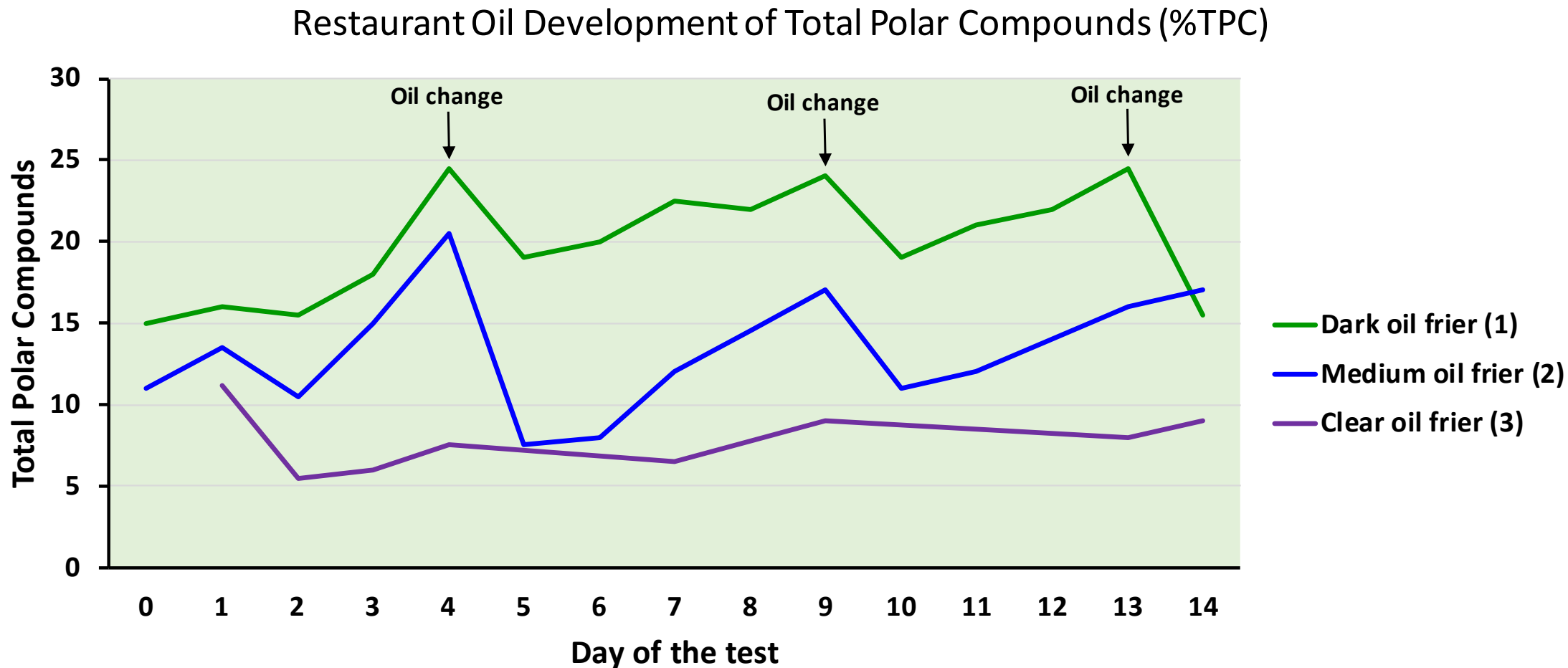


# Development of TPC in the HOSBO/SBO blend

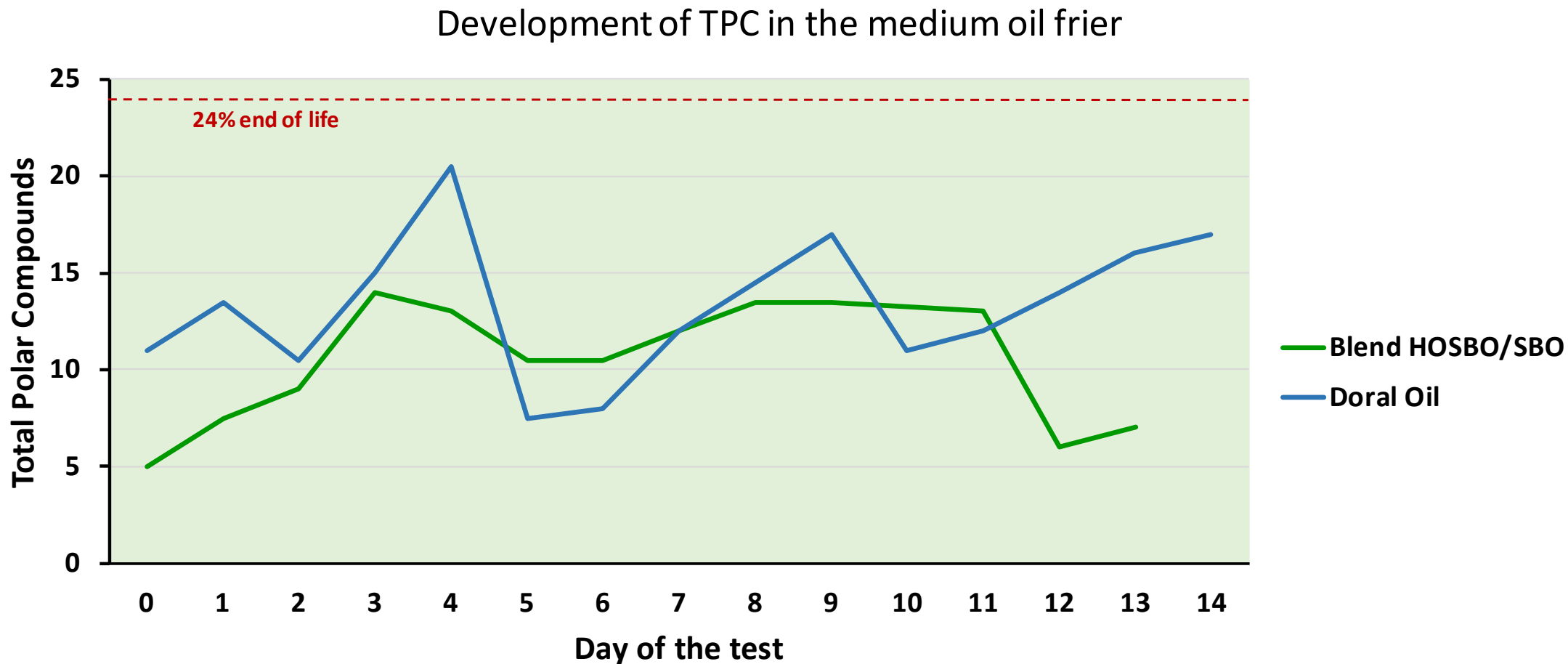
Blend HOSBO/SBO Development of Total Polar Compounds (%TPC)



# Development of TPC in the Restaurant Oil



# Development of TPC in the medium oil frier



# Oil consumption during the frying test

The total amount of oil used in the test were:

Blend HOSBO/SBO	222.32 kg
Restaurant Oil	242.00 kg

The difference is 19.88 kg. This is 8.85% more Restaurant Oil used in the test than the blend.



# Quality of foods prepared with the blend

The use of the HOSBO/SBO mixture did not negatively impact the quality and organoleptic characteristics of the fried foods.

It did not develop a “burnt” smell when heated for a long time.



# Economic benefit of using the HOSBO/ SBO blend

The prices of the oils used in the test were:

Oil	Price per MT
Blend HOSBO/SBO	2,549.84 USD
Restaurant Oil	2,270.78 USD

Cost of the blend HOSBO/SBO with 6 days of fry life

$$\text{Oil changes} = \frac{360 \text{ days}}{6 \text{ days/change}} = 60 \text{ oil changes}$$

$$\text{Oil consumed in changes} = 60 \times 0.020 \text{ MT in the frier} = 1.20 \text{ MT}$$

$$\text{Cost of the blend} = 1.20 \text{ MT} \times 2,549.84 \frac{\text{USD}}{\text{MT}} = \$3,059.81$$

# Economic benefit of using the HOSBO/ SBO blend

## Cost of the Restaurant Oil with 4 days of fry life

$$\text{Oil changes} = \frac{360 \text{ days}}{4 \text{ days/c hange}} = 90 \text{ oil changes}$$

$$\text{Oil consumed in changes} = 90 \times 0.02 \text{ MT in the frier} = 1.80 \text{ MT}$$

$$\text{Cost of Restaurant Oil} = 1.80 \text{ MT} \times 2,270.78 \frac{\text{USD}}{\text{MT}} = \$4,087.40$$

$$\text{Benefit} = \$4,087.40 - \$3,059.81 = \$1,027.59 \text{ per year of operation}$$

This is equal to a saving of \$856.33 per metric ton of the blend HOSBO/SBO used in the restaurant.

# Economic benefit of using the HOSBO/ SBO blend

This way of calculating the economic benefit is a general way to estimate the cost saving associated with longer fry life in the frying operation.

Every frying process is different and can be optimized accordingly.

Additional factors that impact the annual oil cost in a frying operation include the particular details of the frying parameters, training of personnel, the absorption of oil by food, and the amount of oil that can be lost during filtering.



# Conclusions

- ❑ In this test, the HOSBO/SBO blend had a longer fry life than restaurant oil, which represents an economic benefit of up to \$1,028 per year or \$856 per metric ton of HOSBO/SBO blend.
- ❑ Additional soft savings using the HOSBO/SBO blend include a reduction in the number of oil change-outs, the easiest way to clean fryers and the associated labor time.

# Conclusions

- Due to its fatty acid profile, the HOSBO/SBO blend is a healthier oil than restaurant oil higher in heart-healthy monounsaturated fatty acids and about 30% lower in saturated fat.
- The HOSBO/SBO blend can be an excellent replacement for restaurant oil that can meet the upcoming requirements of several food service chains to eliminate the use of additives in frying oils.



Thank You!

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Delivers Solutions

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**SBOMASTERS**



# Panel Discussion

## Outlook for Vegetables Oils



**Rodrigo Martinez**  
StoneX

## Soy Biobased Industrial and Consumer Products



**Barry McGraw**  
Airable Research Lab

## High Oleic Soybean Oil Quality Driving Value



**Jorge Martinez**  
U.S. Soybean Export Council



# Group Picture & Break Time

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Delivers Solutions

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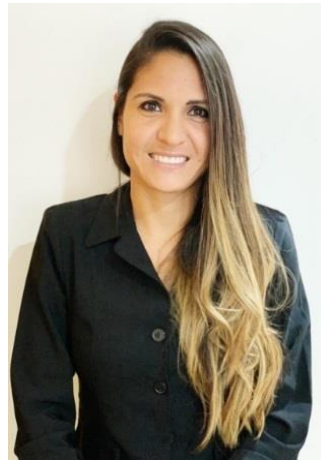
# Vegetable Oil Marketing Sessions

## Marketing Messages for Soybean Oil and Human Health



**Dr. Michelle Braun**  
Soy Nutrition Institute

## Costa Rican Oil Market



**Marianna Chinchilla**  
Inolasa

## Market Trends in Sustainability



**Tarik Eluri**  
U.S. Soy Export Council





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# Soybean Oil & Human Health

**Michelle Braun, PhD**

Director of Partnerships &  
Research Strategy

Soy Nutrition Institute Global

*[Michelle.Braun@sniglobal.org](mailto:Michelle.Braun@sniglobal.org)*





SOY  
NUTRITION  
INSTITUTE

GLOBAL



## SNI Global

- **Vision:** Global scientific voice of soy for human health and nutrition.
- **Mission:** Discover, illuminate, and advocate for soy's role in human health and nutrition using scientific evidence to promote consumption globally.
- **Motivation:** UNIFIED VOICE for the advancement of soy for human health & nutrition.

# STAKEHOLDERS COMING TOGETHER





- Global scientific voice for information on soy and human health and nutrition
- Strategic Priority Areas:
  - Research and scientific affairs
  - Communications and outreach
  - Government and regulatory affairs
- Collaborative, membership organization

*United Soybean Board checkoff funding is not used to influence government action and policy.*

[www.SNIGlobal.org](http://www.SNIGlobal.org)



# Soy is prominently featured in the U.S. Dietary Guidelines

## OILS

soybean oil,  
vegetable oil

## DAIRY

fortified soymilk &  
soy yogurt

## VEGETABLES

edamame & soybeans

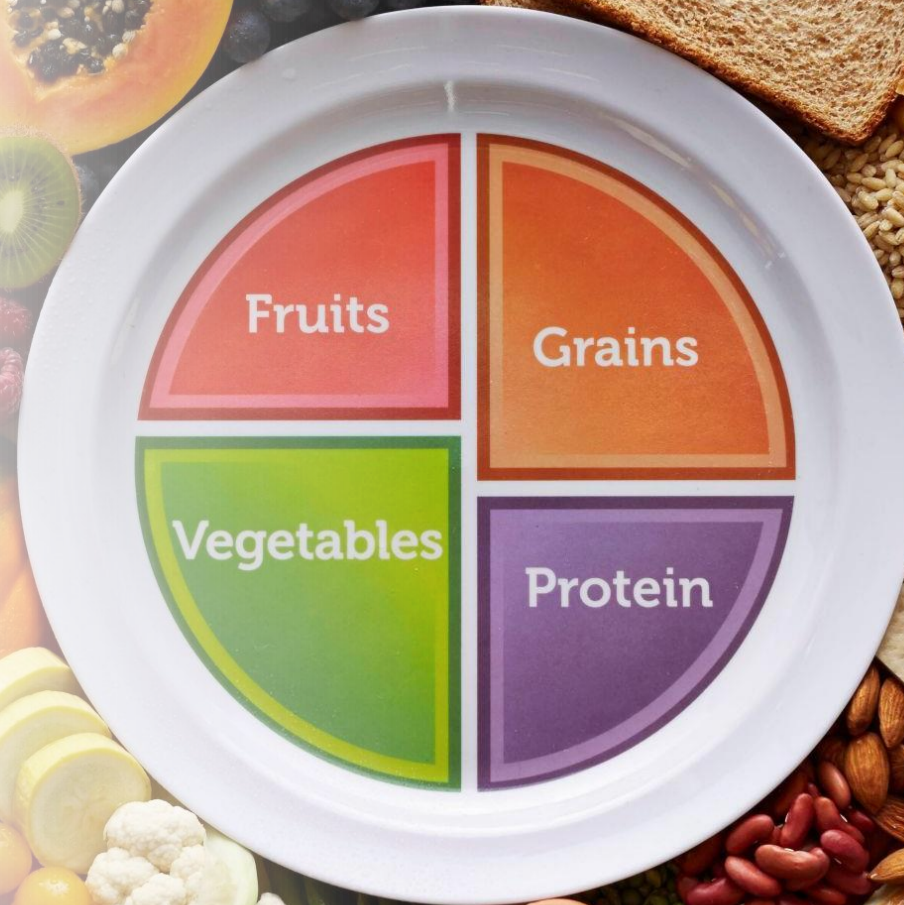
## PROTEIN

tofu, tempeh,  
products made from  
soy flour & soy  
protein isolate

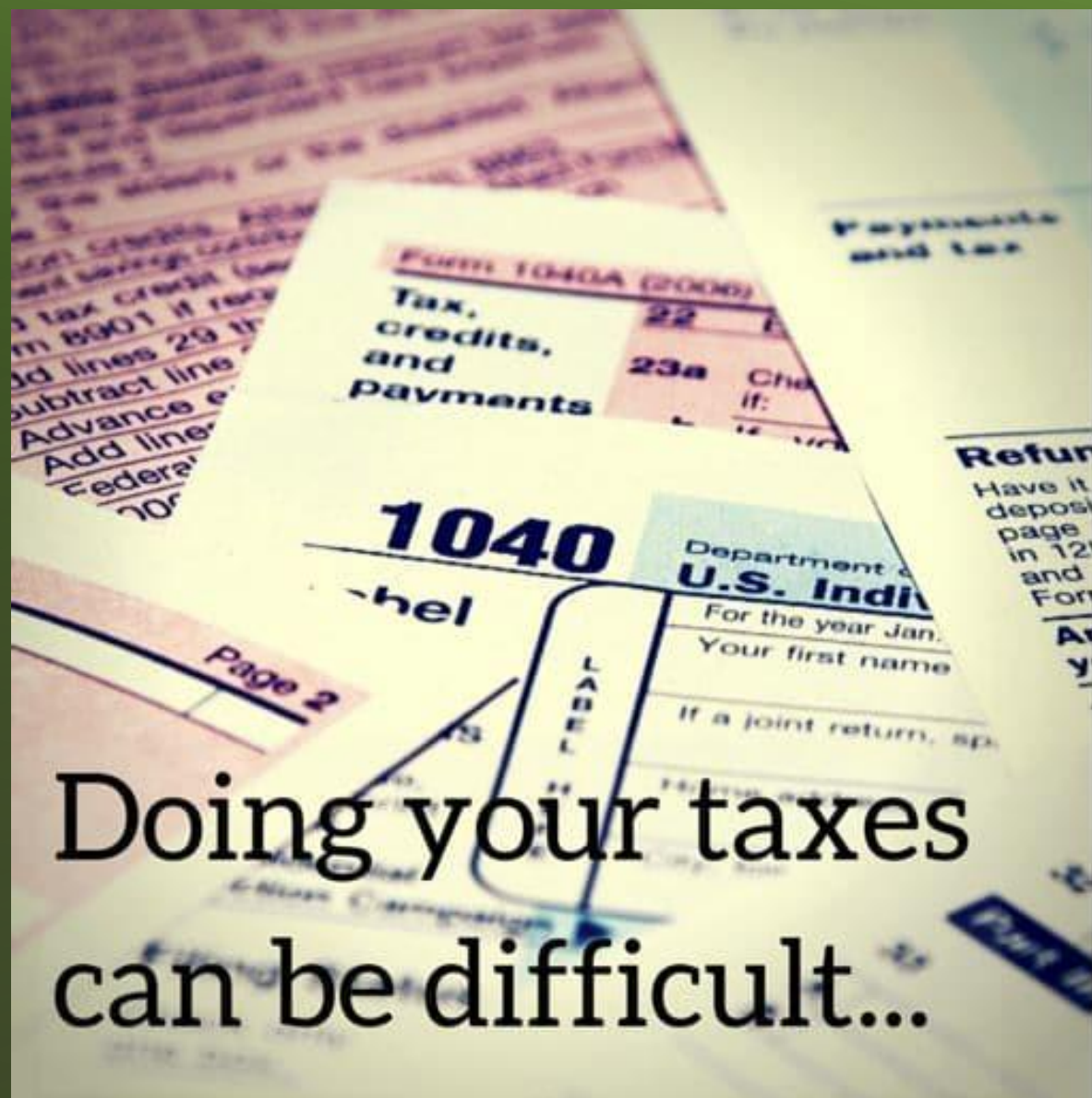


# Current dietary advice for health focuses on dietary patterns

- Dietary patterns with evidence from research to support heart health and lower risk for cardiovascular disease
  - Mediterranean, Dietary Approaches to Stop Hypertension (DASH), Healthy U.S.-Style and plant-based patterns, such as the Portfolio Diet.
- Commonly emphasize fruits, vegetables, whole grains, healthful sources of proteins (e.g., fish, seafood, beans, lentils, tofu and other soy foods, nuts, and seeds) and non-tropical, liquid plant oils in place of solid (more saturated) fats.







Doing your taxes  
can be difficult...

Americans find it *easier* to  
do their own taxes  
than to eat well



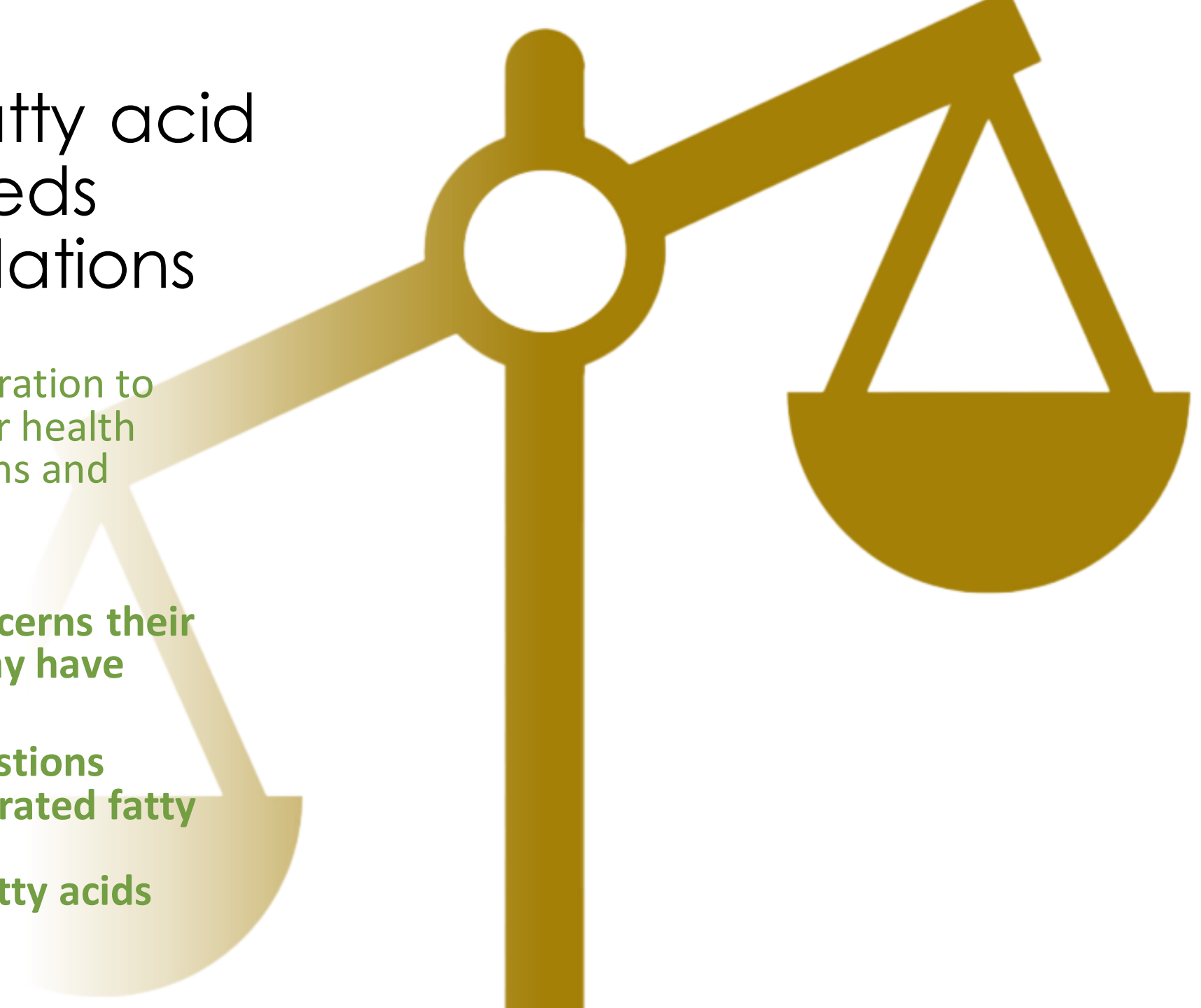
We're here for you:  
[foodinsight.org](http://foodinsight.org)

# Saturated fatty acid intake exceeds recommendations

SNI Global led collaboration to develop a resource for health professionals, dietitians and clinicians.

Provides information:

- **To address any concerns their patients/clients may have about fats & oils**
- **Bring clarity to questions about monounsaturated fatty acids (MUFAs) and polyunsaturated fatty acids (PUFAs).**





# **5 Fun Facts about Health and Nutrition for Humans**

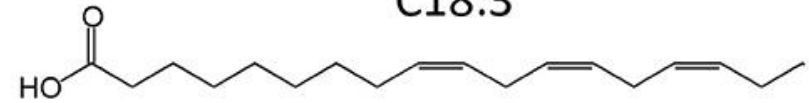
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1

Unlike saturated fats and MUFAs, **Humans cannot synthesize these PUFAs and they must be obtained through the diet.**

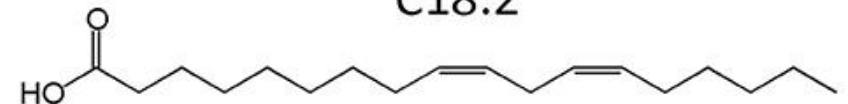
## n-3 PUFAs

$\alpha$ -Linolenic acid  
C18:3



## n-6 PUFAs

Linoleic acid  
C18:2



## 2 Recommendations for Adequate Intake

Recommended intake of omega-6 PUFA linoleic acid (LA)		Recommended intake of omega-3 PUFA alpha-linolenic acid (ALA)	
Men 19-50 years	17 g/d	Men	1.6 g/d
Men ≥51 years	14 g/d		
Women 19-50 years	12 g/d	Women	1.1 g/d
Women ≥51 years	11 g/d		

Based on median intakes in the U.S. where deficiency is non-existent among healthy individuals

3

**Significant clinical evidence supports the benefits of replacing saturated fats with unsaturated fats, particularly polyunsaturated fats, on cardiovascular health and risk factors.**







# 4

## **Clinical trial evidence shows intake of omega-6 PUFA linoleic acid (LA) does not increase inflammation or oxidative stress.**

- The double bonds are susceptible to oxidation.
- PUFA-containing oils can become rancid if improperly stored.
- Important to consider for how oils are stored and used in cooking, especially frying.

5

## **PUFA-containing vegetable oils, including soy oil can be part of a healthful diet.**

Vegetable oils rich in unsaturated fatty acids should be consumed instead of rich sources of saturated fats

- butter, tallow, lard, palm and coconut oils, duck fat and ghee





# You Should Continue Adding Soybean Oil Into Your Diet.

- Here's why





Soybean oil is found in many  
common foods.

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**Soybean oil is the most widely used edible oil in the U.S. and world.**

- 7% of U.S. caloric intake
- Commonly labeled “vegetable oil.”

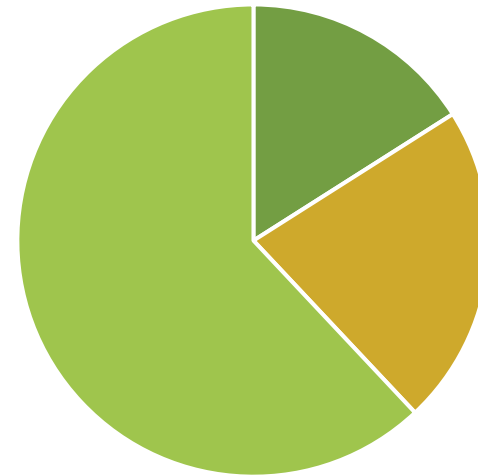
Soybean oil can provide good fats.

---





- Soybean Oil has a heart-healthy fatty acid profile comprised of mostly unsaturated fatty acids



- Saturated Fat (16%)
- Monounsaturated Fat (22%)
- Polyunsaturated Fatty Acids (62%)

Soybean oil provides essential  
omega-3 and omega-6 fatty acids.







Soybean oil contains both essential fatty acids such as omega-6 fatty acids (linoleic acid) and omega-3 fatty acid (alpha-linolenic acid).

- two-thirds of which is omega-6 PUFA linoleic acid (LA).

Soybean oil may reduce  
inflammation.

---





Achieving recommended intake of omega-3 fatty acids may help reduce inflammation, which is thought to be involved in the development of chronic conditions like heart disease, cancer and diabetes.

Soybean oil may lower the risk of  
heart disease.

---





# Soybean oil bears a Qualified Heart Health Claim.

**“Supportive but not conclusive scientific evidence suggests that eating about 1½ tablespoons (20.5 grams) daily of soybean oil, which contains unsaturated fat, may reduce the risk of coronary heart disease.”**

Soybean oil, due to its predominantly unsaturated fat profile, lowers circulating cholesterol levels and coronary heart disease risk and has no effect on markers of inflammation and oxidation.



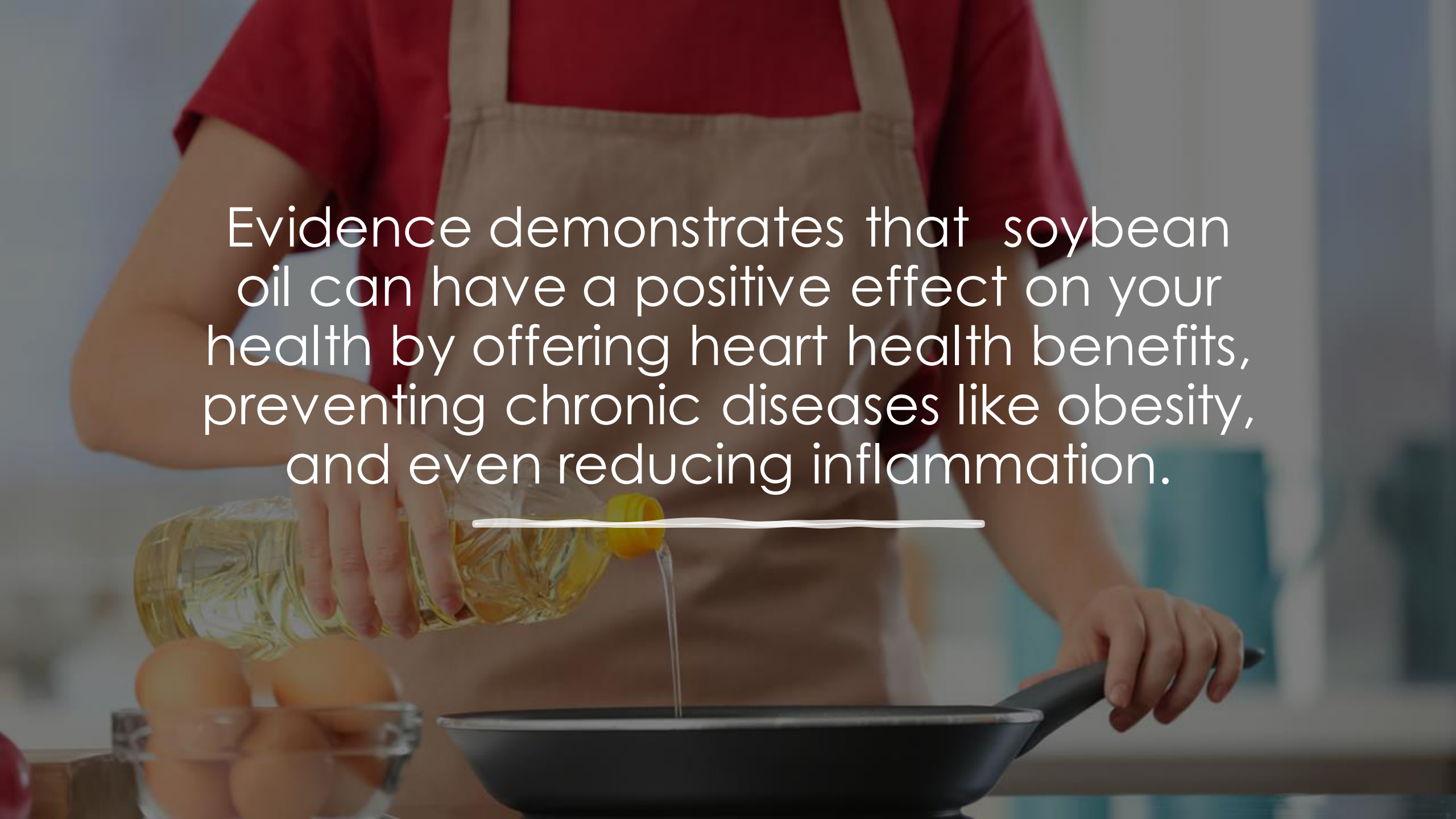
Soybean oil does not elicit allergic reactions  
in those who have a soy allergy.

---





*highly refined*  
SOYBEAN OIL = NOT ALLERGENIC

A person wearing a red t-shirt and a tan apron is pouring a clear, yellowish liquid from a glass bottle into a black frying pan. The person's hands are visible, one holding the bottle and the other holding the handle of the pan. In the foreground, there is a glass bowl containing several brown eggs. The background is a blurred kitchen setting with light-colored walls and a teal object. The text is overlaid in the center of the image.

Evidence demonstrates that soybean oil can have a positive effect on your health by offering heart health benefits, preventing chronic diseases like obesity, and even reducing inflammation.





# LEARN MORE



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/company/soy-nutrition-institute



@SoyNutritionInstitute



/SoyNutrition



# INDIANA CORN AND SOY INNOVATION CENTER

4750

1







## Costa Rican Oils Market



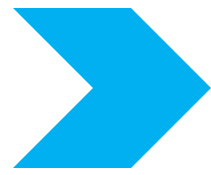


# COSTA RICA

- Costa Rica is a rugged, rain forested Central American country with coastlines on the Caribbean Sea (northeast) and Pacific Ocean (southwest).
- **Population** 5,18 million people.
- It is one of the top ecotourism destinations due to its conservation policies to protect nature and conserve biodiversity.

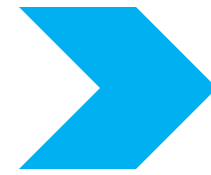






INOLASA





# INOLASA

- INOLASA is strategically located close to Caldera Port (Pacific Ocean). Just 9km away.



Soybean Path (U.S. Costa Rica)





# INOLASA

Leading company dedicated to processing/ crushing American soybean. More than 38 years in the national market and permanently working with USSEC since then. Great employer in Costa Rica: 526 direct employees/ 215 through specific contractors.

Industrial



Animal  
Feed



Food  
Service



Retail



Pharmaceutical



# BALANCE OLEIC PLUS

Clean label, contains no antioxidants.



Blend of high oleic soybean oil or sunflower oil, and standard soybean oil.



USSEC and INOLASA have run performance tests in several restaurants and fast food chains obtaining great results.



High performance.



# CAPULLO PLUS

DHA



Maintains normal triglyceride levels, heart rate and blood pressure.



DHA makes up approximately 30% of the structural fats in the gray matter and 97% of the total omega-3s in the brain.



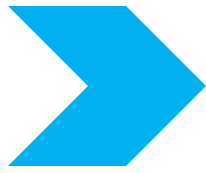
DHA plays an important role in both, infant visual development and visual function throughout life.



DHA is a key component of heart health.







# SUSTAINABILITY

**We are committed!**

First Latin American company to sign sustainability agreement with USSEC

*AMBIENTAL COSTA RICA PROGRAMS: Focused on circular economy and using waste and resources in a highly sustainable way*

Clean Energy, Biomass Boiler & Electricity Generation, RPET bottles.

**SUSTAINABLE**  
 **U.S. SOY**™

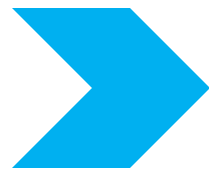


PLÁSTIC 



ACEITE RESIDUAL 





# OIL MARKET

Industrial



Food Service



Retail

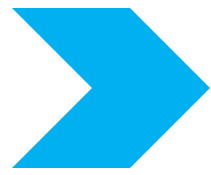


**Presentations:** 500ml to 5L, 35Lb, drums, IBC & bulk tanks.

**Types:** Soybean oil, sunflower oil, palm oil, EVOO and diferent oil blends.







# OUR BRANDS

Capullo 

Balance 

FIBRA *max*  
CASCARILLA DE SOYA

Capullo   
Plus  
CON DHA

Solé 

SOYA *max*  
HARINA DE SOYA

Doral

Leci-soy 

Soyamax  
Bio Plus





**MARIANNA CHINCHILLA CALVO**

**Contact:**

**Email: [marianna.chinchilla@inolasa.com](mailto:marianna.chinchilla@inolasa.com)**

**Office Phone: (506) 2519-7200 Ext 279**





INDIANA SOYBEAN ALLIANCE

INDIANA SOYBEAN ALLIANCE

GAINING FIELD

**SOY**  
Delivers Solutions

**USSEC**





**US SOY**

# Market Trends & U.S. Soy Sustainability

Tarik Eluri – Sustainability Manager, USSEC

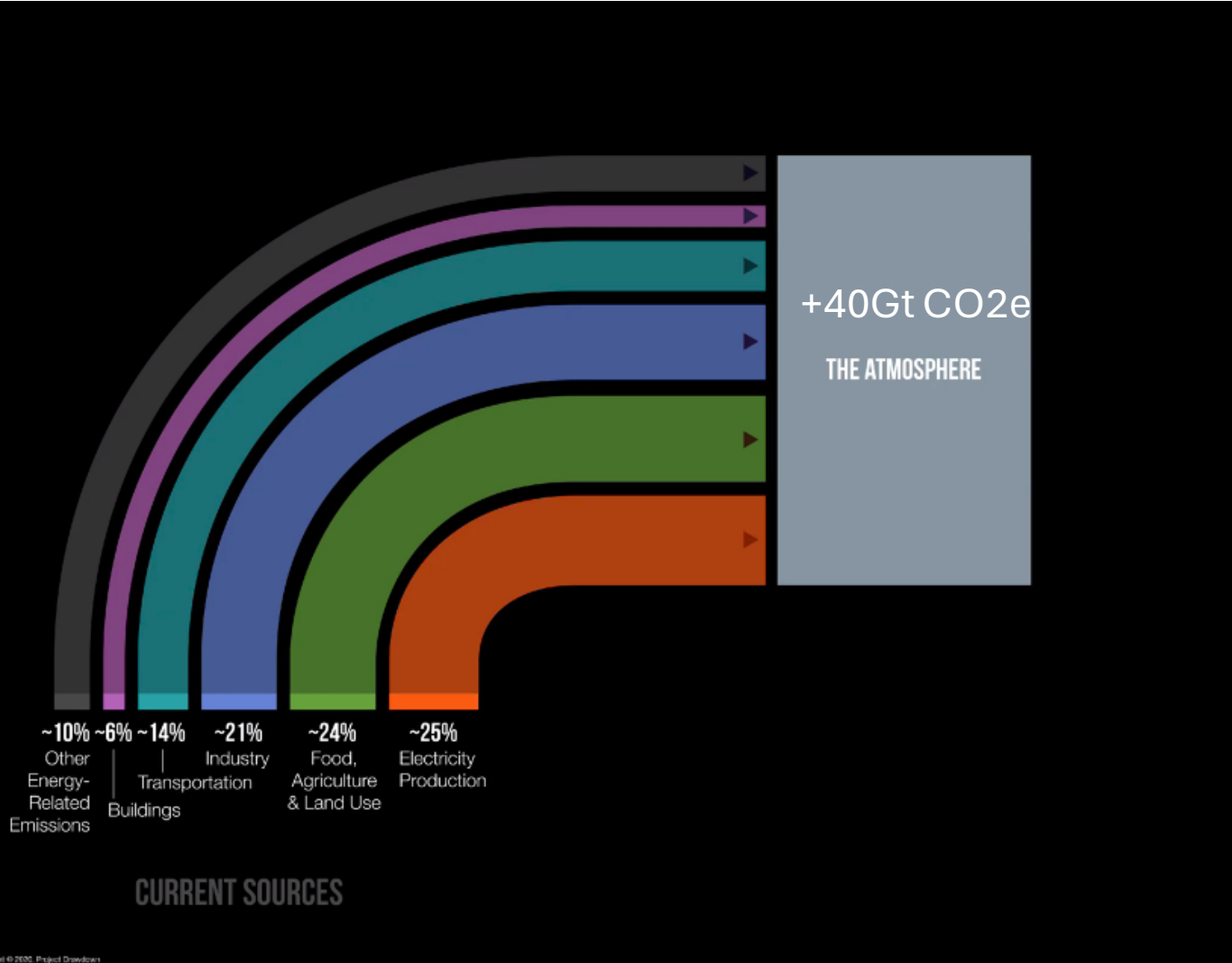
**SUSTAINABLE**  
 **U.S. SOY**

# What is Sustainability?





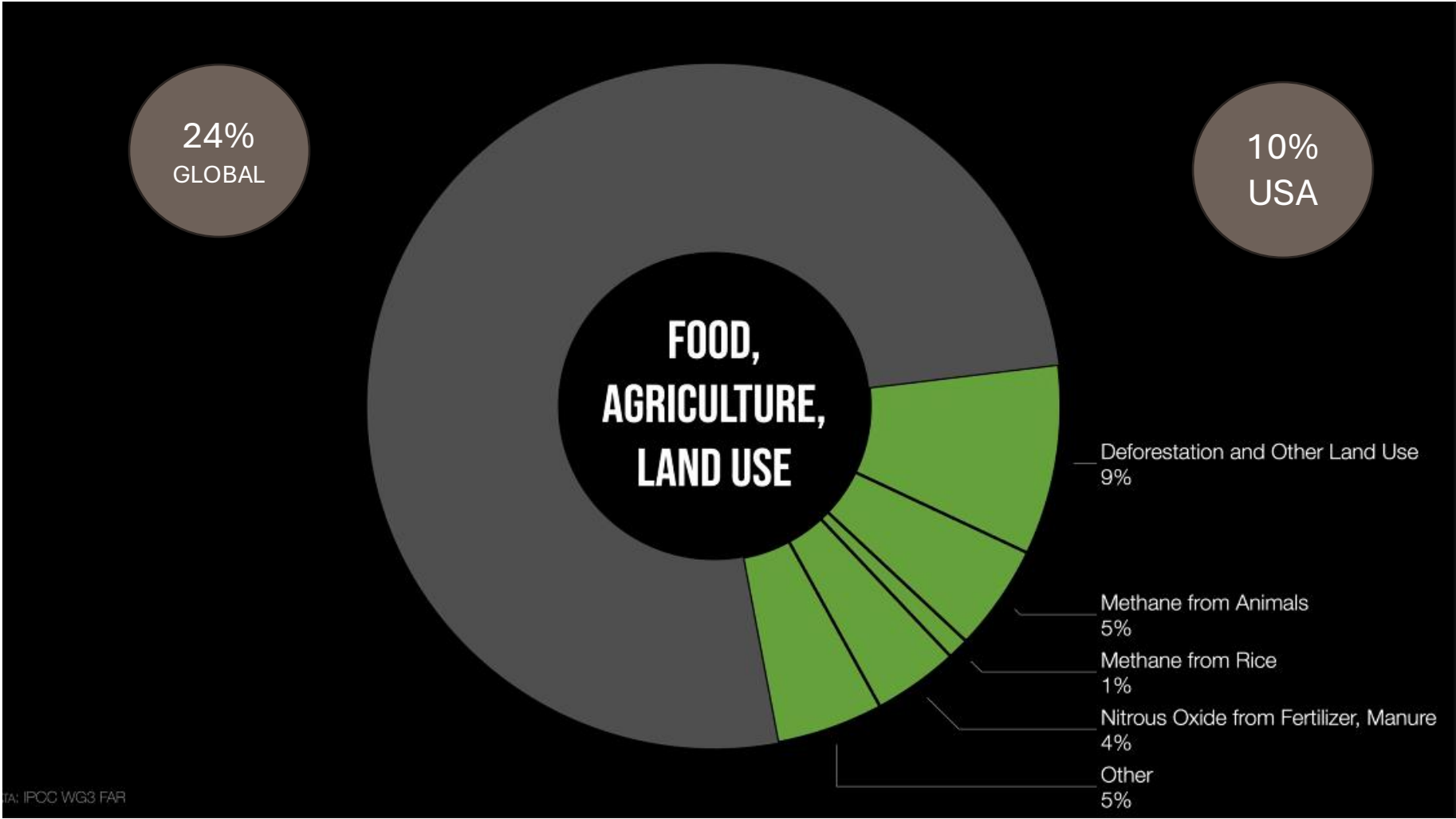
# Agriculture constitutes 24% of all CO<sub>2</sub> emissions



Source: Project Drawdown. Photo Source: United Soybean Board.



# Agriculture emissions hotspots



Source: Project Drawdown

# Customers are concerned about the climate and want to make a difference

Climate change anxiety is impacting decisions from family planning, to diet, fashion, jobs and more

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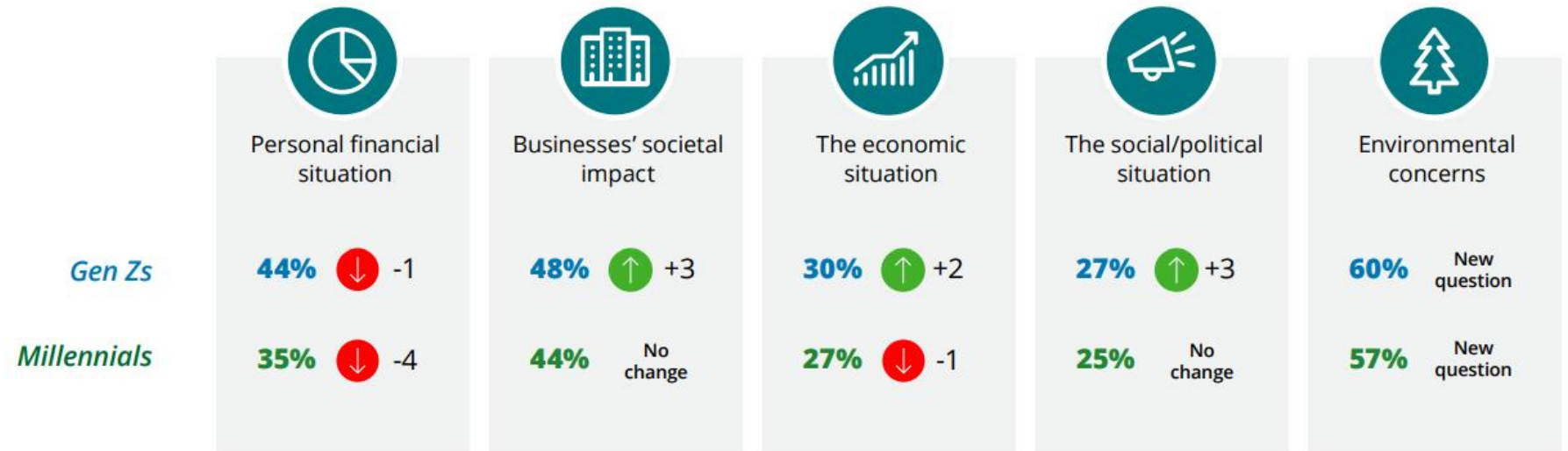
**Climate change is a major stressor for Gen Zs and millennials.** Six in 10 (60% of Gen Zs/57% of millennials) say they have felt anxious about the environment in the past month. Roughly the same percentage cite extreme weather events and wildfires as a stress driver. The majority are taking action, with 69% of Gen Zs and 73% of millennials actively trying to minimize their impact on the environment. **This has a major impact on their lifestyle choices.**

# Consumer Perspective

50% of Gen Zs and 46% of millennials say they and their colleagues are pressuring businesses to take action on climate change, which marks a slight increase from last year.

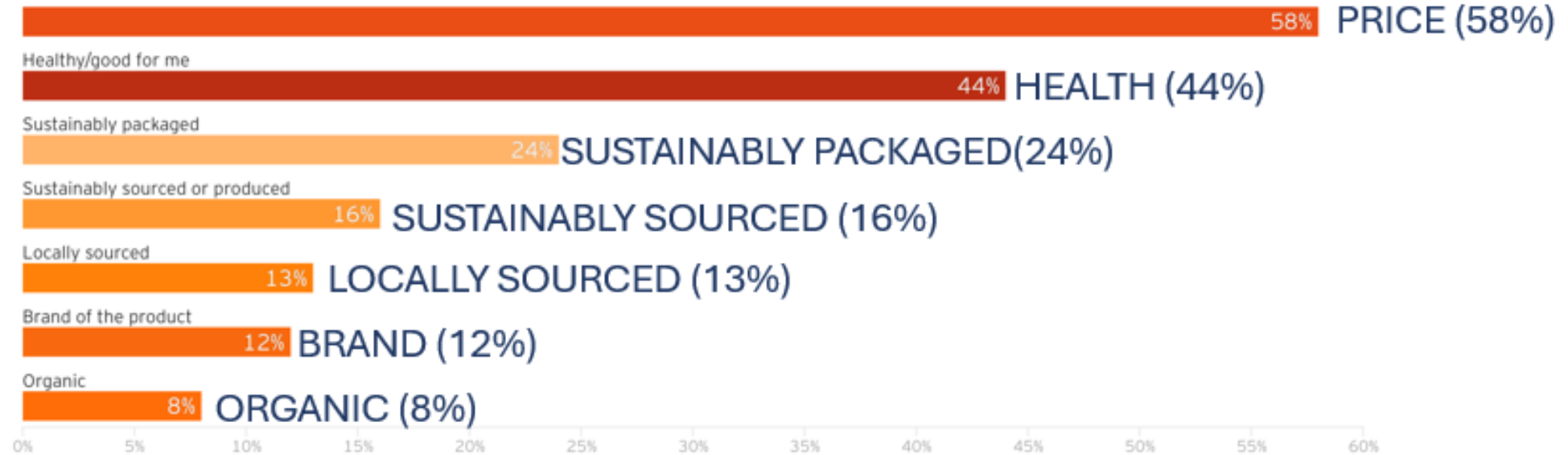
## Environmental

To what extent do you agree or disagree with the following statement? In the last month, I have felt worried or anxious about climate change



# Customers' attitudes are shifting

## MOST IMPORTANT FOOD PURCHASE CRITERIA IN 3 YEARS



Source: EY. Insights into a more consumer centric food system



# Customers are taking action on sustainability through their purchases

## Global Consumers Want Food And Beverages That They Can Feel Good About 2023

Share of global respondents

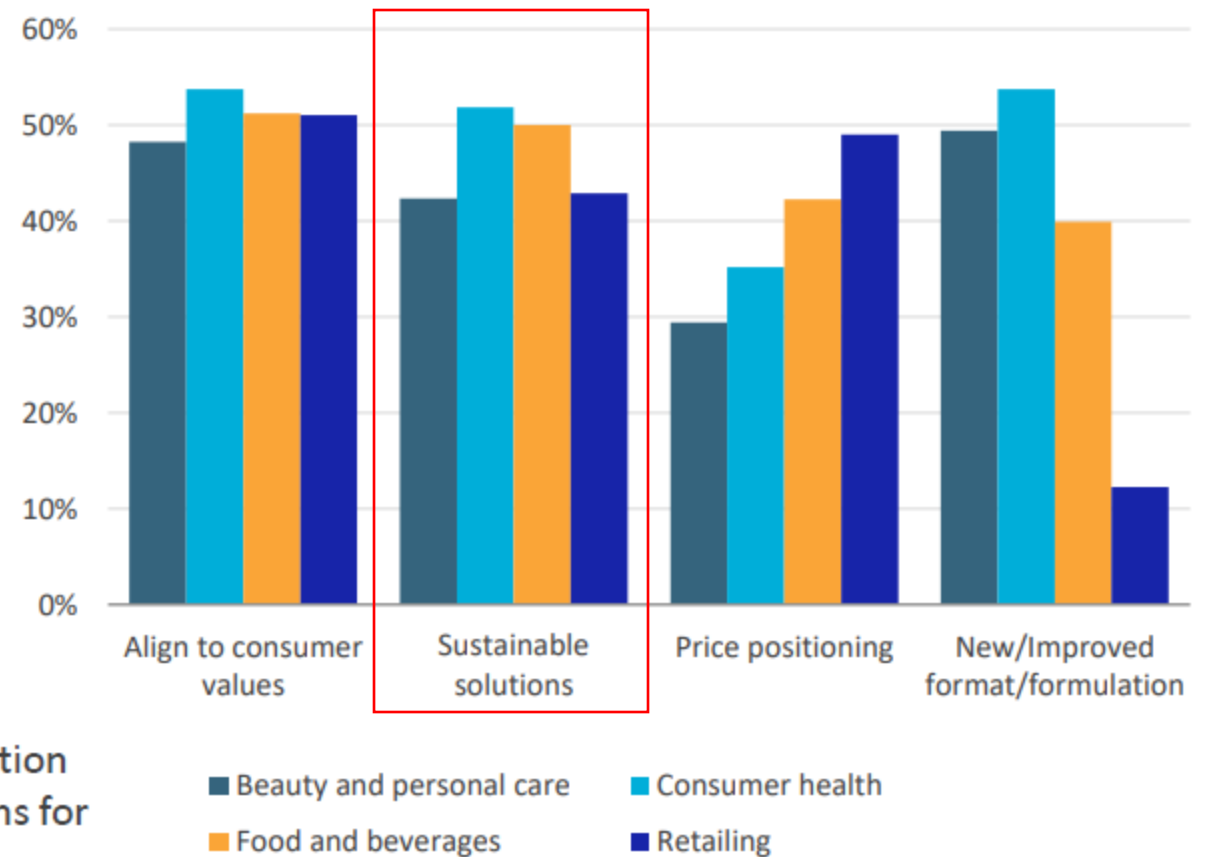


Euromonitor 2023 Voice of the Consumer: Lifestyles Survey 2023: Key Insights

# Companies are responding to customer demands by ramping up innovations in sustainability

According to industry professionals in the Voice of the Industry survey in 2023, the alignment to consumer values and the creation of sustainable solutions are the most important innovation plans for the next one or two years.

Innovation plans 2023: per industry  
% global respondents



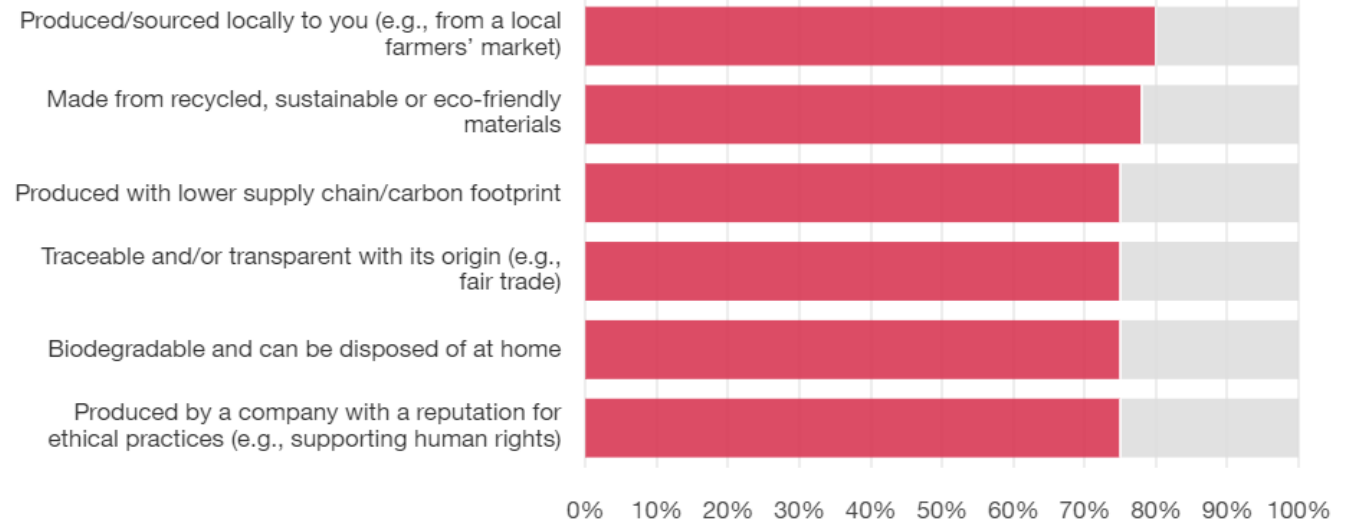
Source: Euromonitor Voice of the Industry, fielded August-November 2023 (n=757)  
Q: What innovation plans does your company have relating to new product development in the next 1-2 years?

# Consumer Brands recognize that Millennials and Gen Z support brands that promote sustainability

Consumers will pay a sustainability premium of 5% or more

**Question:** How much above an average price would you be willing to pay for a product that is...

How much extra are you willing to pay: **Up to 5%**



Base: All respondents (8,975)  
Source: PwC's June 2023 Global Consumer Insights Pulse Survey

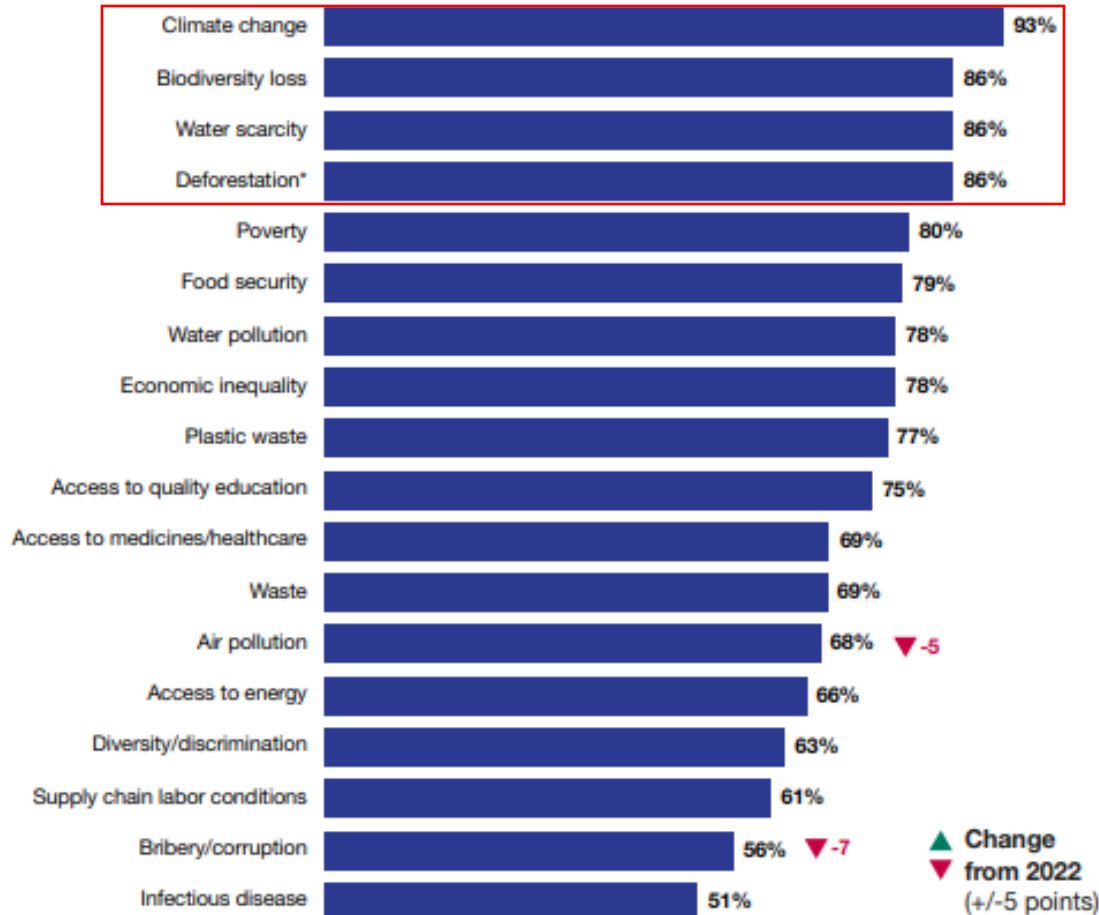
# Corporate Sustainability Leaders Perspective



Considering society's numerous sustainable development challenges, please rate the urgency of each of the following:

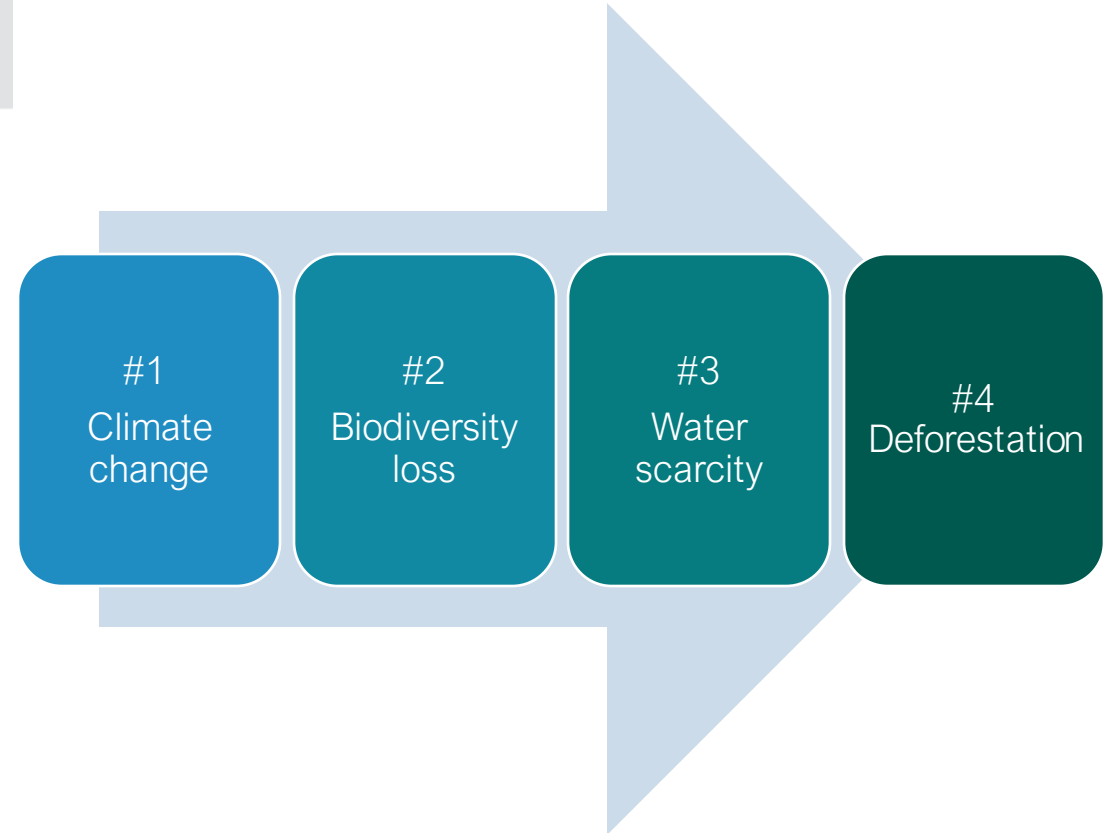
Please use a scale of 1 to 5 where 1 means "not urgent at all" and 5 means "very urgent."

% of Experts, "Urgent" (4+5), 2022-2023



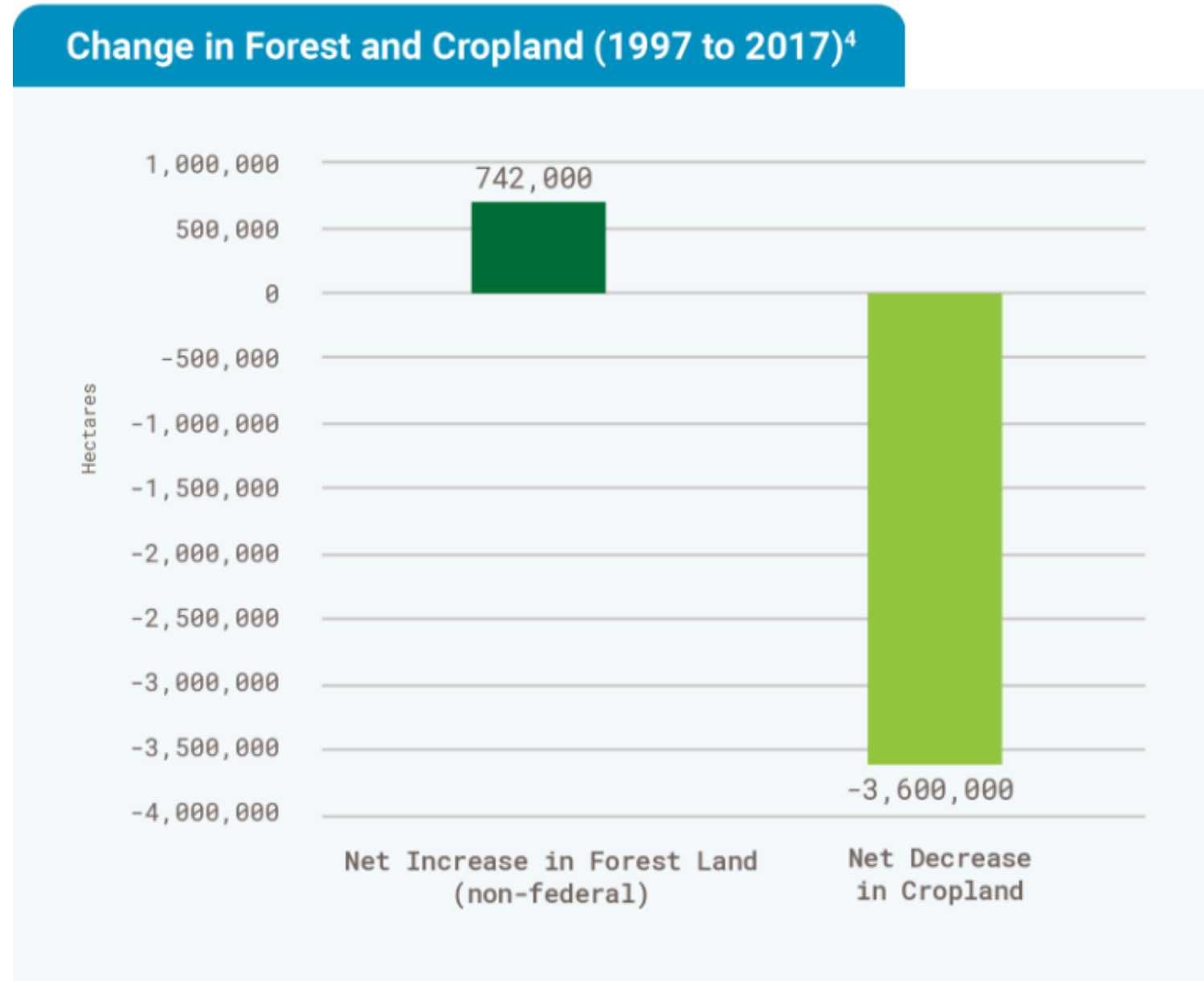
\*Not asked in previous years

▲ Change from 2022 (+/-5 points)  
▼





Cropland has **decreased** while Forest land **increased** in the US



2017 National Resources Inventory Summary Report, U.S. Department of Agriculture's Natural Resources Conservation Service, <https://www.nrcs.usda.gov/nri>

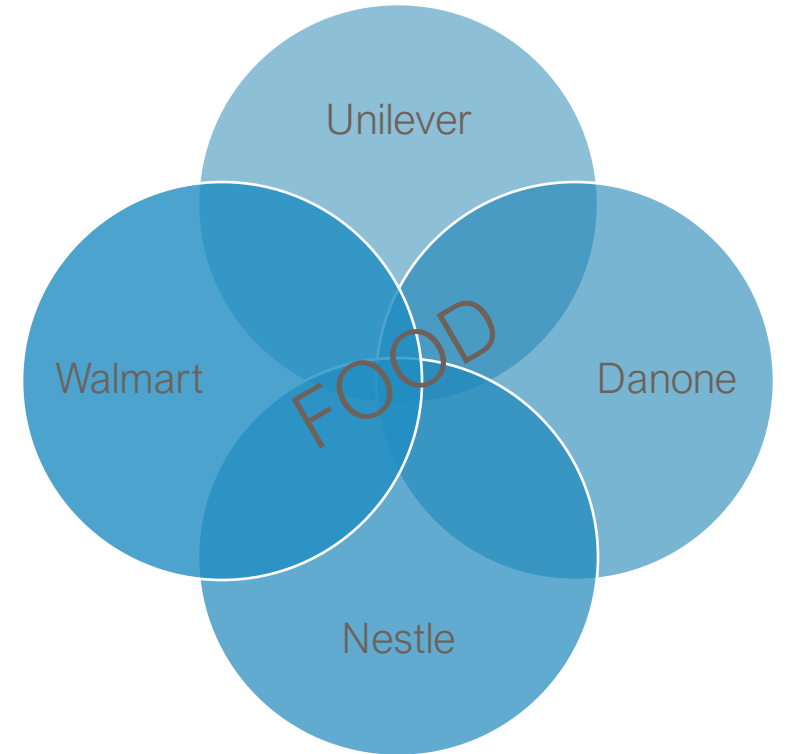
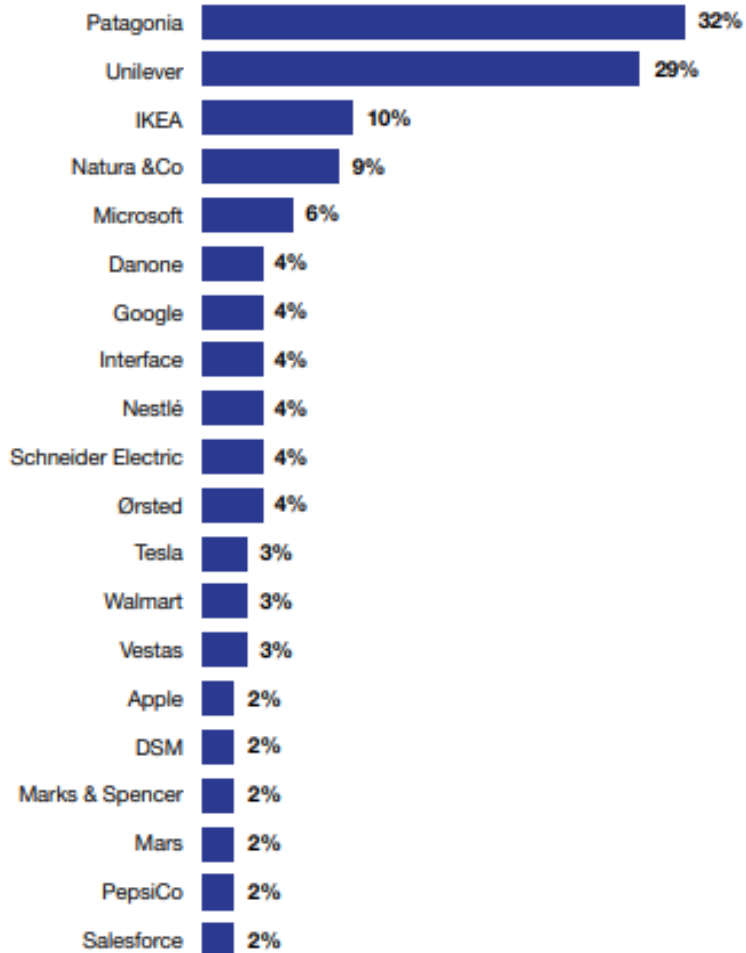
# Corporate Sustainability Leaders Perspective

Q

Which specific companies do you think are leaders in integrating sustainability into their business strategy?

Please enter a maximum of three companies in the spaces provided.

% of Experts, Unprompted, Total Mentions, 2023



# Net Zero: Companies taking action



Image Sources: Science Based Targets Initiative. World Economic Forum.



# Food Companies & Retailer Perspectives



Responsible Sourcing  
Requirements and Guidance in  
Place to Address....

#1  
Climate  
change

#2  
Biodiversity  
loss

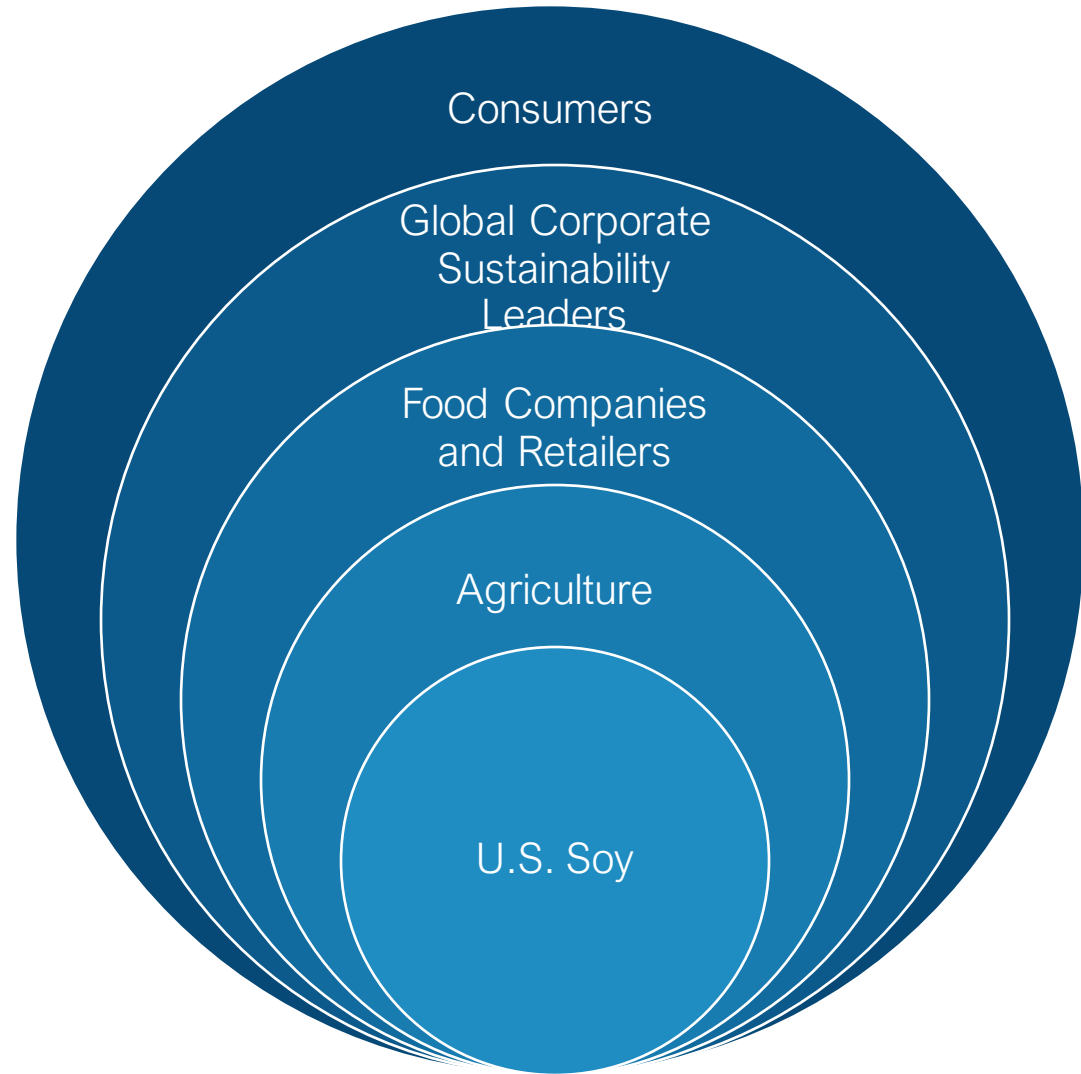
#3  
Water  
scarcity

#4  
Deforestation

- Responsible Sourcing May Include...
- Certified and/or Benchmarked by Other Organizations
  - Assessed as Compliant by Third Party
  - Sourced From Low-Risk Countries
  - Verified through other Programs (SSAP, RTRS)



U.S. Soy is also taking action as soy products are a foundational part of the broader food value chain



**97%**

**of U.S. farms  
are family farms**







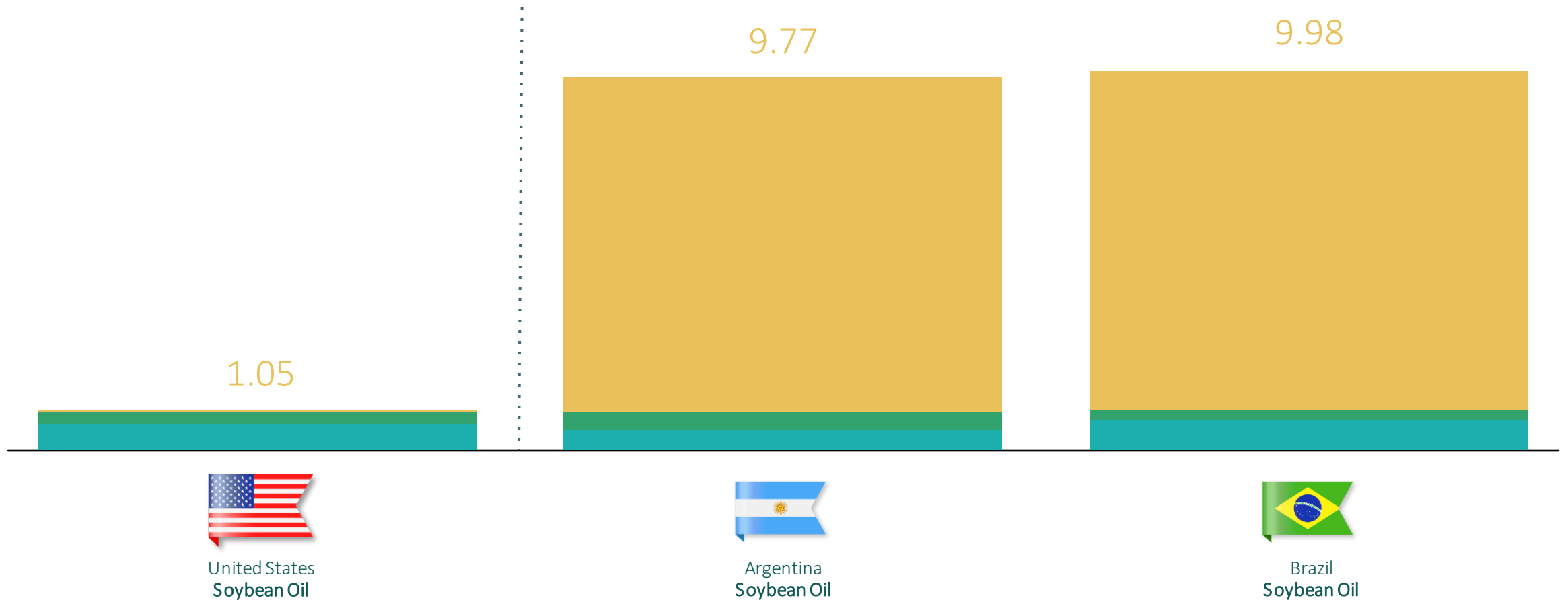
# Carbon Footprint of U.S. Soybean Oil

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# U.S. Soybean Oil vs. Argentina & Brazil Soybean Oil

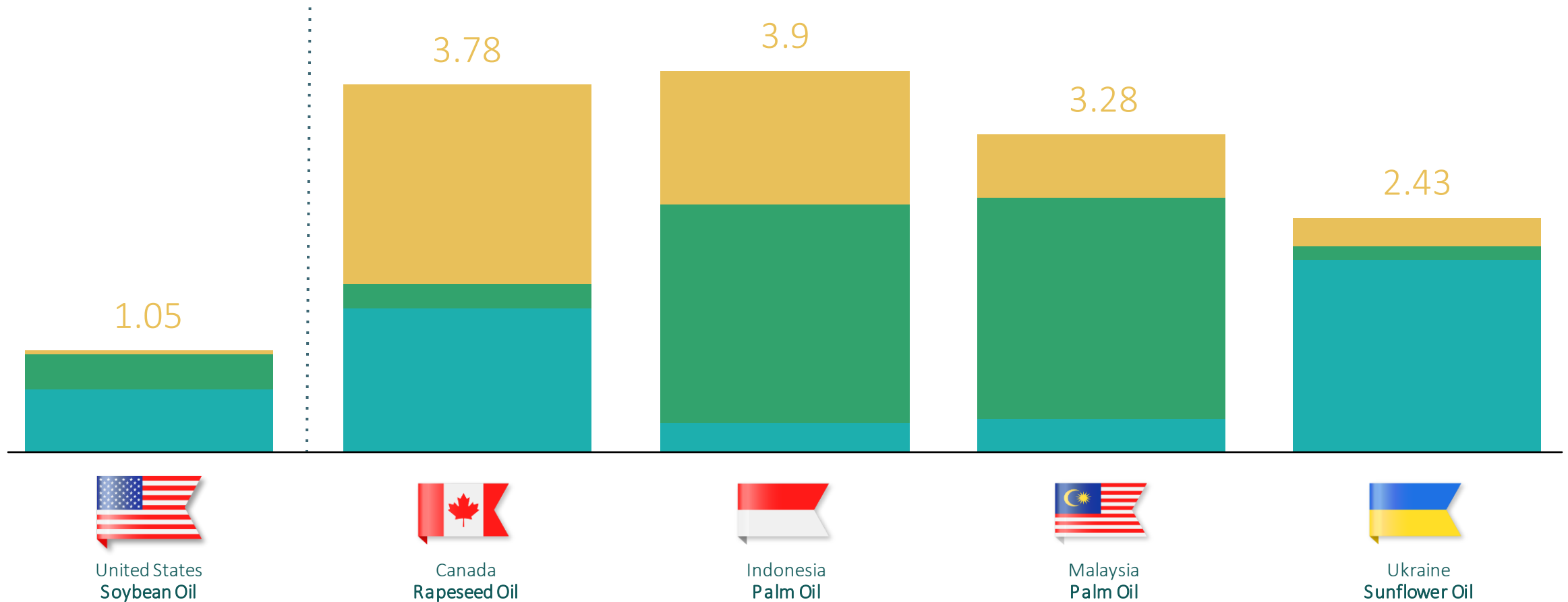
Carbon Footprint (in. Land Use Change, ex. Peat) – Total (kg CO<sub>2</sub> eq/kg product)\*





# U.S. Soybean Oil vs. Other Vegetable Oils

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







# U.S. SSAP

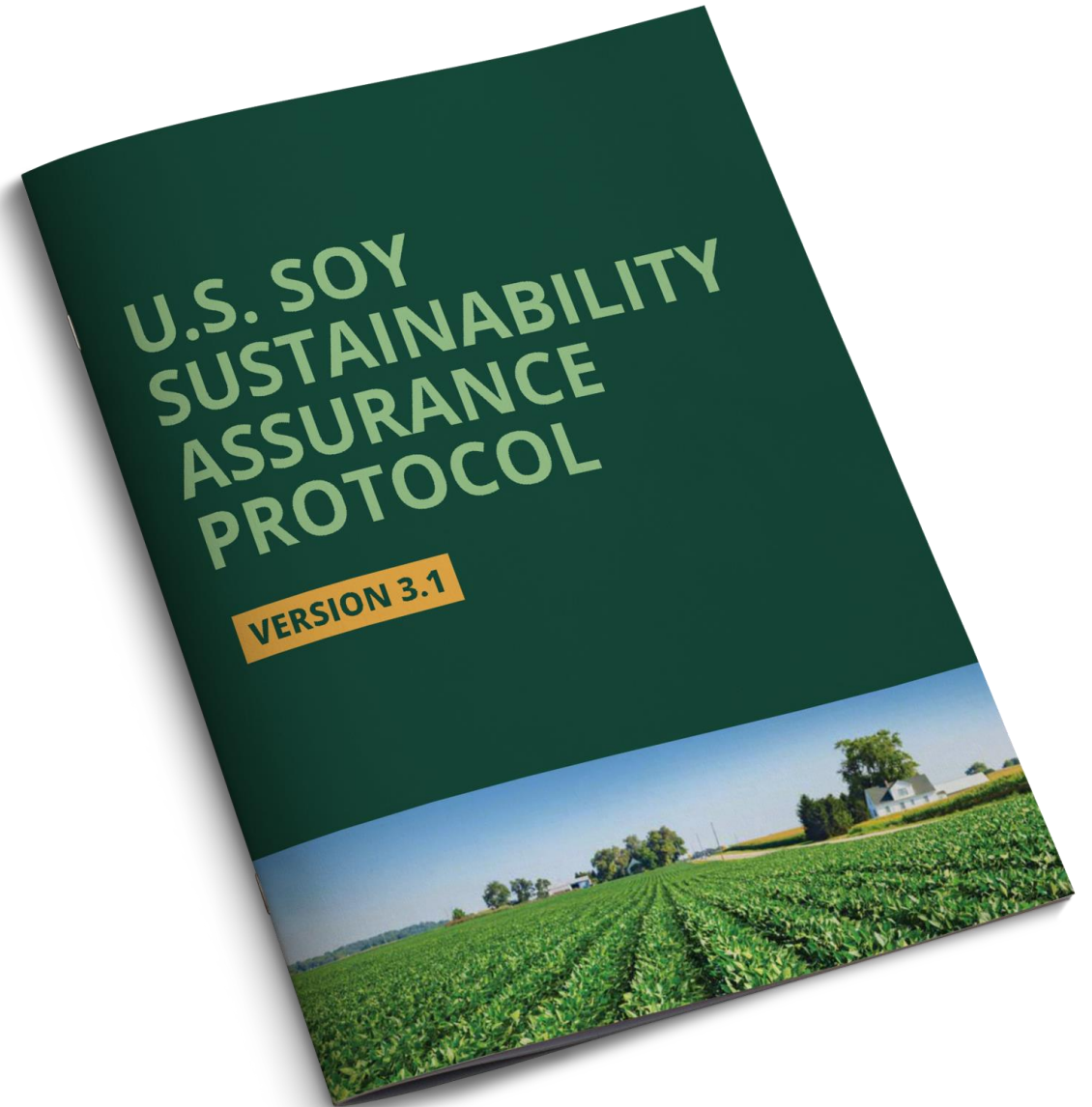
U.S. Soy Sustainability Assurance Protocol

US SOY



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

- Scheme designed to meet sourcing guidelines in international market
  - Four Directives
- Aggregate/mass balance
- Third party audit
- Certification
- Continuous Improvement Goals
- Certificates can be transferred from exporters to customers along the value chain



# 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

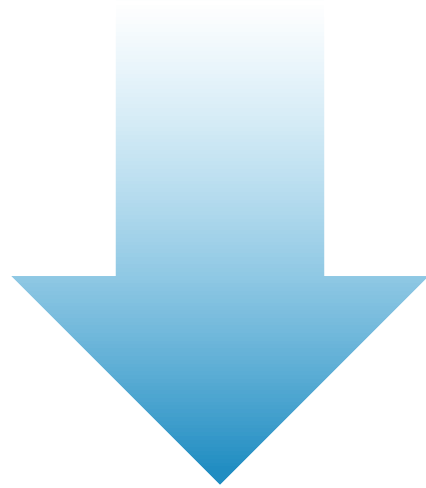
EPA, EEO, OSHA

### 4. Continuous Improvement

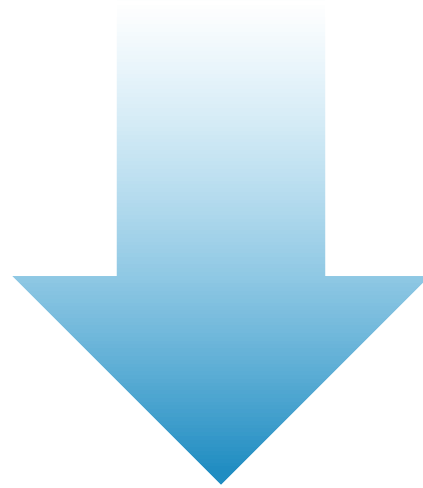
CRP, Conservation programs, training and info sharing



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

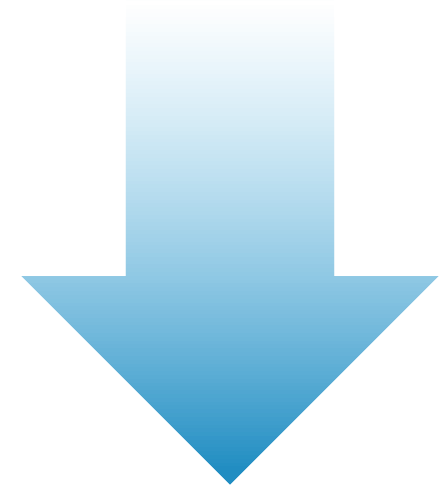
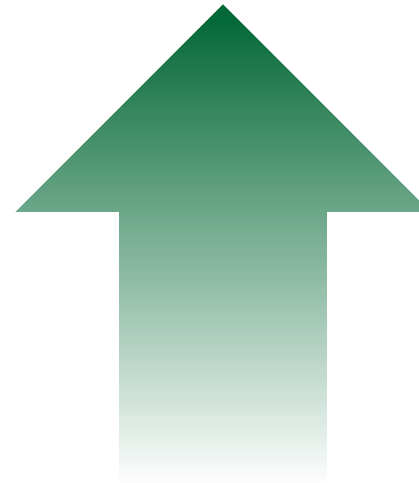


**REDUCE LAND  
USE IMPACT BY  
10 PERCENT**



**REDUCE SOIL  
EROSION 25 PERCENT**

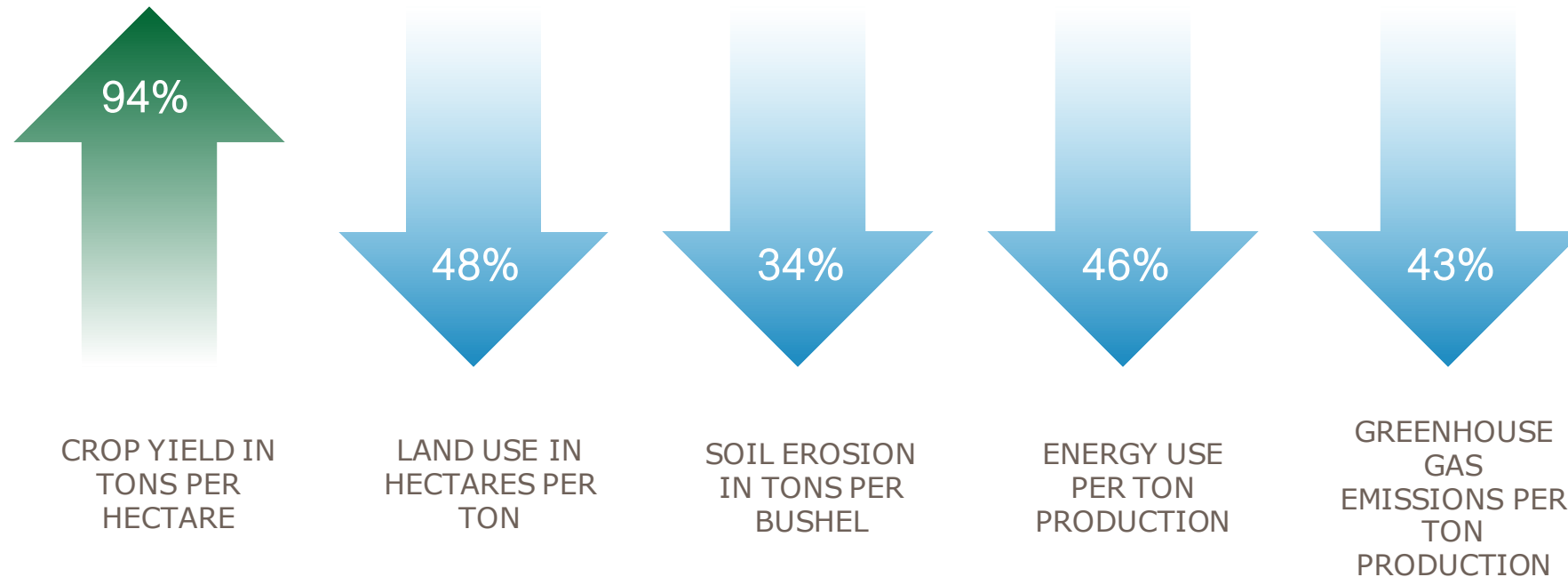
**INCREASE ENERGY  
USE EFFICIENCY  
BY 10 PERCENT**



**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



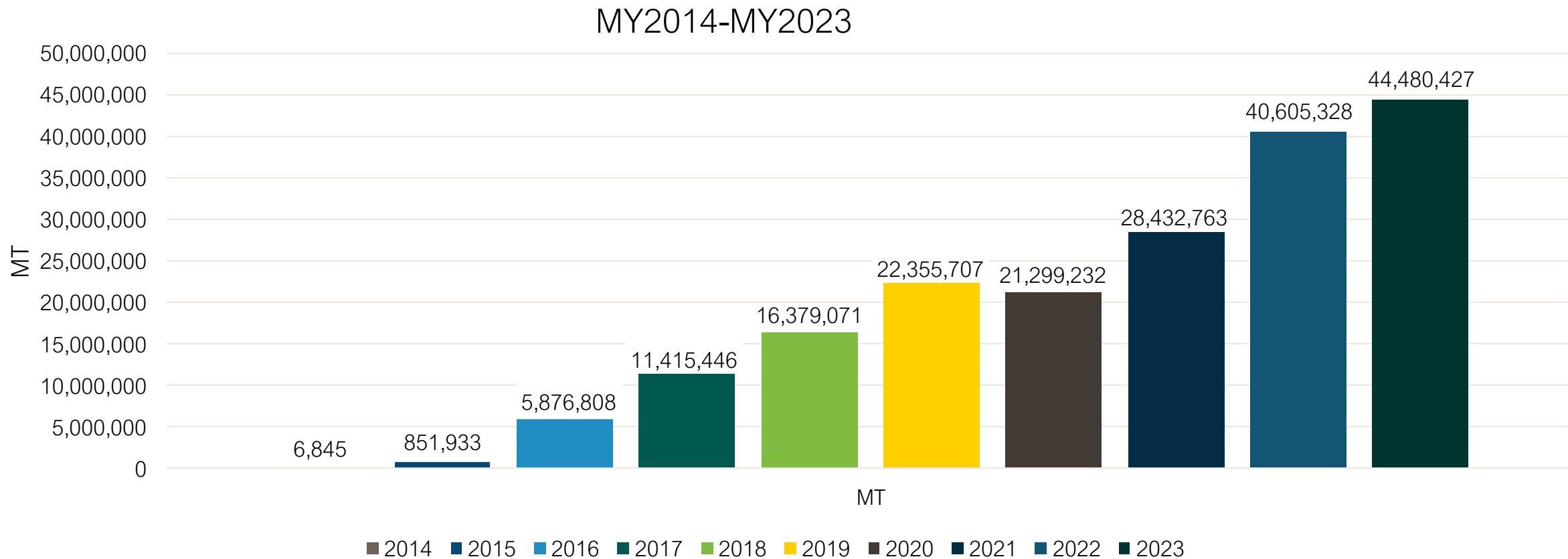


# SSAP Usage

Customers Embracing U.S. Soy Sustainability Verification

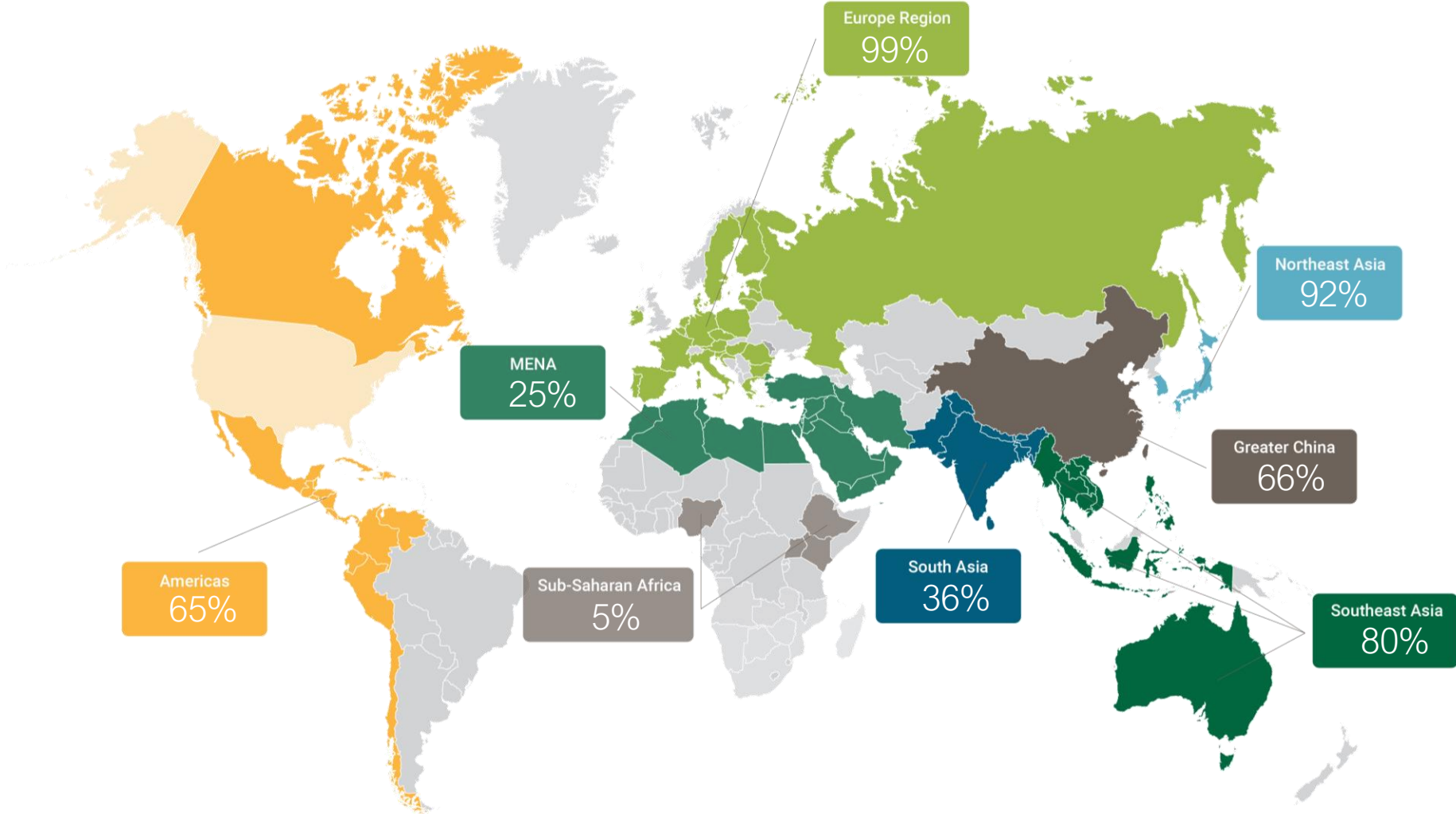


# Verified Sustainable U.S. Shipments for Marketing years 2014-2023





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



# U.S. Soy Products verified sustainable Marketing Year 2023 by Region (as a % of Total Exports)

Region	MY23 Exports	Verified Sustainable Exports (MTs)	Percent
Americas	12,751,469	8,313,560	65%
Europe	6,631,010	6,531,686	99%
Greater China	32,537,043	21,402,017	66%
MENA	2,600,525	655,257	25%
Northeast Asia	3,231,998	2,962,222	92%
South Asia	638,891	228,210	36%
Southeast Asia	5,484,170	4,387,282	80%
Sub-Saharan Africa	4,112	193	5%
<b>TOTAL</b>	<b>63,879,218</b>	<b>44,480,427</b>	<b>70%</b>

# SSAP Transferable Certificates Issued by Region for Marketing Year 2023

	Transfer Level				Shipment Weight	Certificate Number
	Level 1		Level 2		Total	Total
Row Labels	Shipment Weight (MT)	Certificate Number	Shipment Weight (MT)	Certificate Number		
Americas	97,636	10			97,636	10
Europe	1,059,097	106	22,908	14	1,082,006	120
Greater China	2,179,411	33	7,572	12	2,186,983	45
SEA	135,038	3	34,893	8	169,931	11
South Asia	57,182	1			57,182	1
<b>Grand Total</b>	<b>3,528,364</b>	<b>153</b>	<b>65,373</b>	<b>34</b>	<b>3,593,738</b>	<b>187</b>





# Leveraging the SSAP

Recognized throughout the Industry

US SOY



# Key Achievements for SSAP



Silver Equivalency



# SUSTAINABLE



# U.S. SOY™



- In use in:

Belize	El Salvador	Guatemala	Colombia	Ecuador
Panama	Venezuela	Costa Rica	Dominican Republic	Mexico
Nicaragua	China	Taiwan	Japan	South Korea
	Indonesia	Philippines	Vietnam	

- Can be used to differentiate U.S. Soy, examples can include bags, totes, labels, etc.

*Fed with*

# SUSTAINABLE U.S. SOY™





# Sustainable U.S. Soy Label Testimonials



"Consumers gradually gain interest in our products with the logo."

- **Janbee Corporation**

"The logo serves as a credible endorsement of Miracle's commitment to sustainability. It can also enhance consumer confidence, upon seeing this logo, they can be more inclined to trust that the soy in the product was produced sustainably."

- **Miracle Soybean Food Int'l. Corp**

"The logo is a representation of the quality and reliability of our products."

- **Ichiban Foods Co., Ltd**

"We decided to use the logo because we believed our products would provide consumers with opportunities to participate in environmentally-helpful consumption."

- **Sajo Daerim**

The logo for US SOY.ORG features a stylized orange 'S' on the left, followed by the text 'SOY.ORG' in a blue, textured, sans-serif font. The background of the slide is a photograph of a vast green soybean field under a cloudy sky, with a semi-transparent white banner across the middle.

# US SOY.ORG

**USSEC.ORG | USSOY.ORG**



While the U.S. Soybean Export Council (USSEC) does not guarantee the forecasts or statements of USSEC Staff or Contractors, we have taken care in selecting them to represent our organization. We believe they are knowledgeable and their presentations and opinions will provide listeners with detailed information and valuable insights into the U.S. Soy and U.S. Ag Industry. We welcome further questions and always encourage listeners to seek a wide array of opinions before making any financial decisions based on the information presented. Accordingly, USSEC will not accept any liability stemming from the information contained in this presentation.





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Enter passcode

**SBOMASTERS**



# Panel Discussion

## Marketing Messages for Soybean Oil and Human Health



**Dr. Michelle Braun**  
Soy Nutrition Institute

## Costa Rican Oil Market



**Marianna Chinchilla**  
Inolasa

## Market Trends in Sustainability

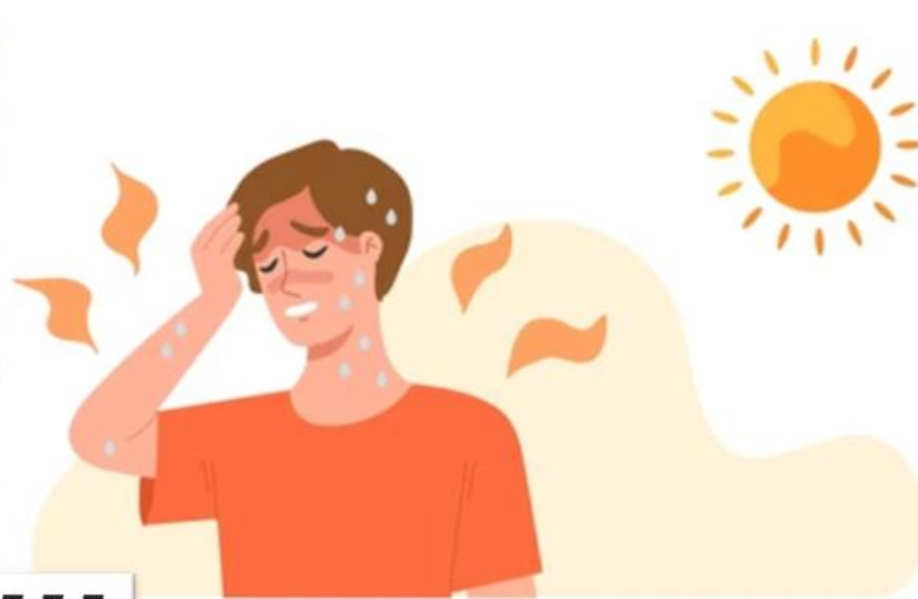


**Tarik Eluri**  
U.S. Soy Export Council

# Thank You!





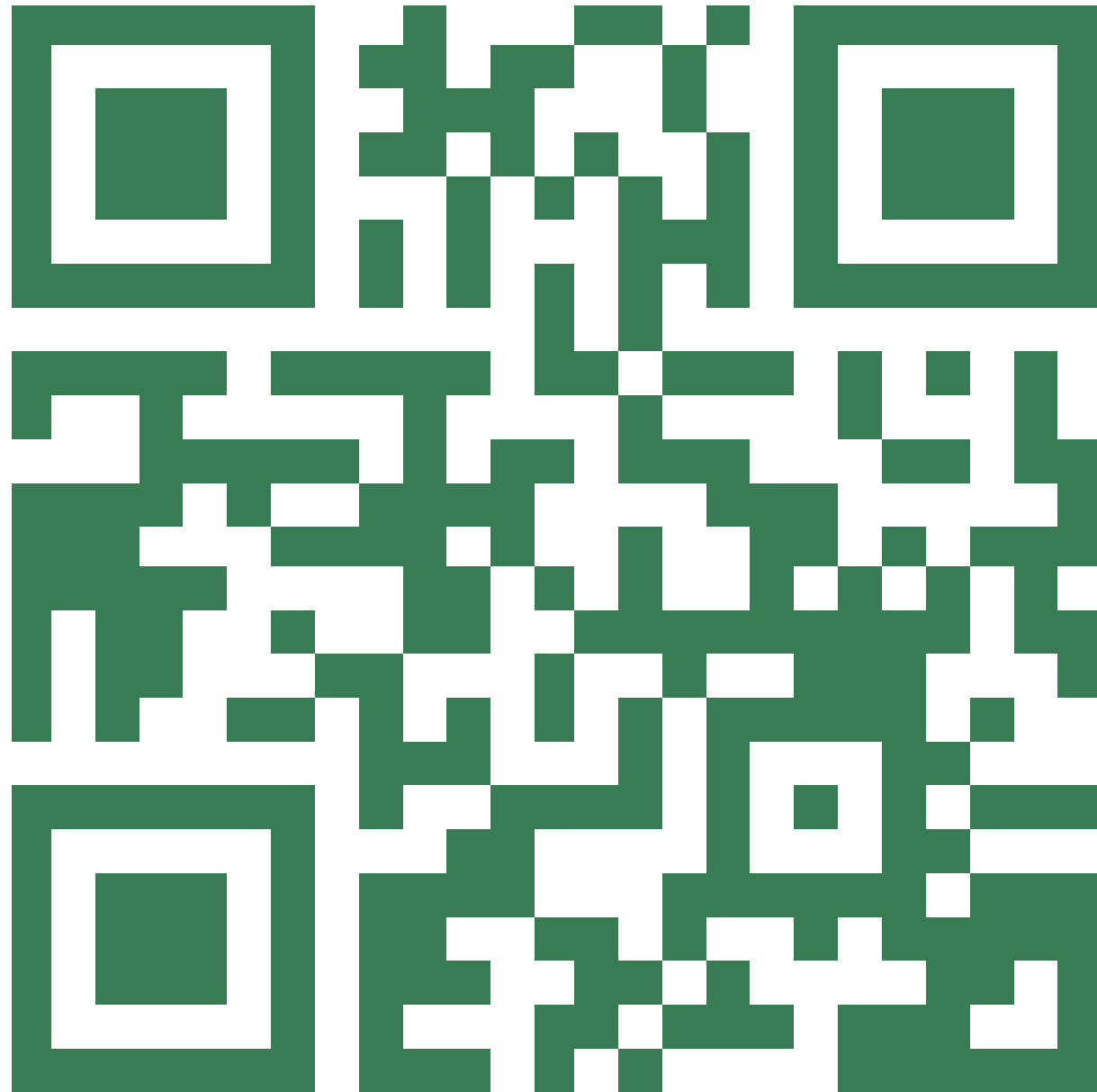


1. Don't Miss the Bus
2. Apply Sunscreen
3. Drink Plenty of Water





# Survey



U.S. SOY INTERNATIONAL  
TAL  
MASTERS 2024

