

High Oleic Soybean Oil

Richard Galloway NOPA Industry Forum February 10, 2016



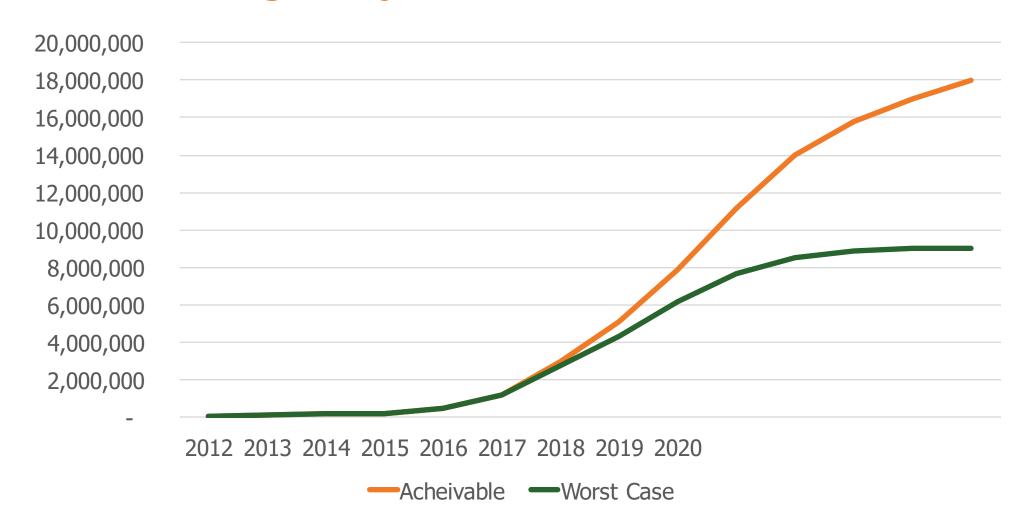








HOS Acreage Projections



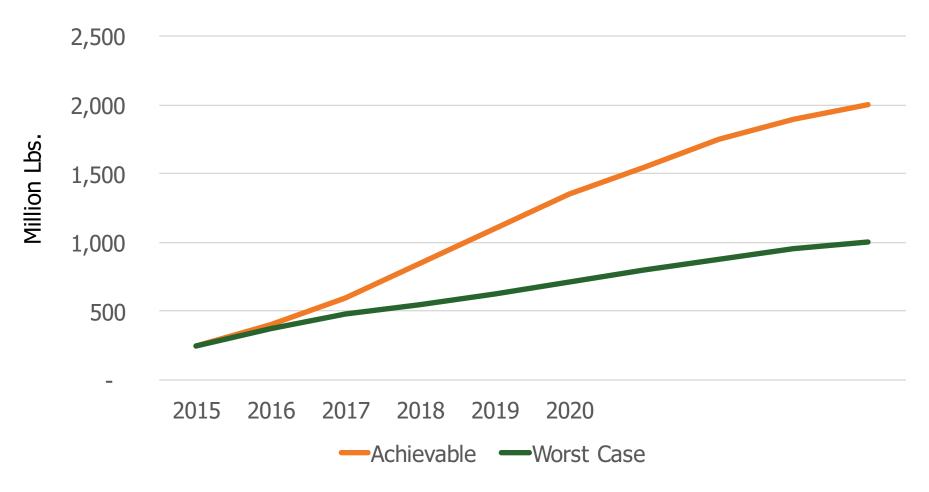


Scenario Assumptions Compared as of 2023-24

	Achievable	Worst Case
North American Edible Usage	6,040	3,775
North American Inedible Usage	1,540	365
Exports (in lbs. of oil & oil equivalent soybeans)		
HO Soybeans	1,500	360
HO Oil	220	110
Million HOS Acres Required	18.000	9.000



Growth in EIE Soy Utilization (includes HOS portion)





Impact on Industry Crush Margins

- "Achievable" Success Scenario
 - Annual domestic soybean crush 1,970 million bu.
 - Average annual crush margin 84c/bu
- "Failure" Scenario
 - Annual domestic soybean crush 1,866 million bu.
 - Average annual crush margin 70c/bu
- Value of "Achievable" Success in HOS Commercialization

\$319 million annually

Does not include the full benefit from EIE

This projection will be revised this summer, at which time NOPA members will be provided with the updated projection





Drivers of Achievable Success





Drivers of Maximum Success

- Reduce farmer premiums needed to attract acreage
- Reduce or eliminate market system IP costs between farm and processor
- Reduce or eliminate crusher IP costs





Drivers of Maximum Success

- Reduce or eliminate farmer premiums needed to attract acreage
- Reduce or eliminate market system IP costs between farm and processor
- Reduce or eliminate crusher IP costs
- Maximize competition among crushers and refiners





Drivers of Maximum Success

- Reduce farmer premiums needed to attract acreage
- Reduce or eliminate market system IP costs between farm and processor
- Reduce or eliminate crusher IP costs
- Maximize competition among crushers and refiners
- Food service companies and food manufacturers that traditionally used PHO accept HOS and EIE soy as functional and economical solutions





Success Drivers

- Reduce or eliminate farmer premiums needed to attract acreage
- Reduce or eliminate market system IP costs between farm and processor
- Reduce or eliminate crusher IP costs
- Maximize competition among crushers and refiners
- Food service companies and food manufacturers that traditionally used PHO accept HOS and EIE soy as functional and economical solutions
- An acceptable and positive name to replace "hydrogenation" is developed and widely accepted (EIE soy)





Success Drivers

- Reduce farmer premiums needed to attract acreage
- Reduce or eliminate market system IP costs between farm and processor
- Reduce or eliminate crusher IP costs
- Maximize competition among crushers and refiners
- Food service companies and food manufacturers that traditionally used PHO accept HOS and EIE soy as functional and economical solutions
- An acceptable and positive name to replace "hydrogenation" is developed and widely accepted (EIE soy)
- The industry increases EIE production capacity





Success Drivers

- Reduce farmer premiums needed to attract acreage
- Reduce or eliminate market system IP costs between farm and processor
- Reduce or eliminate crusher IP costs
- Maximize competition among crushers and refiners
- Food service companies and food manufacturers that traditionally used PHO accept HOS and EIE soy as functional and economical solutions
- An acceptable and positive name to replace "hydrogenation" is developed and widely accepted (EIE soy)
- The industry increases EIE production capacity
- Resellers and distributors market HOS as mainstream products instead of high price premium products





Promotional Strategies

- Promote the common interests in HOS success to farmers
- Promote HOS and EIE at major food industry events
- Aggressive interaction with the food industry media
- Direct contact with prospective users of HOS and EIE
- Develop Case Study examples of success
- Source of information to the processing and refining industries
- Undertake third party functionality testing and sensory evaluations





Functionality Testing

- Fry life
 - Measured polar compounds and FFA
 - HOS performed similarly to HO sun and superior to all other high stability oils
- Donut frying
 - Compares EIE/HOS, EIE/commodity soy and palm
- Bakery shortening
 - Compares PHO, EIE commodity soy, EIE HOS and palm
- Veg oil blends
 - HOS with commodity soy, corn, cottonseed and peanut oils
 - Cost effectiveness and flavor





THANK YOU





