

Soy Insights Perspectives Survey

Executive Summary
April 2015

EXECUTIVE SUMMARY

The primary objective of Soy Insights is to provide industry-wide information on issues that may impact the entire U.S. soy value chain, enabling the industry to create long-term strategies for an increasingly global and changing environment. A key tool in collecting this valuable information is the Perspectives Survey, which gathers insight from a variety of experts on what the industry should be discussing and focusing on in five primary focus areas: general industry, soybean meal, soybean oil, customer focus, and freedom to operate.

For the third Perspectives Survey, in-depth interviews were conducted with 41 experts from across the soy value chain, as well as nine Soy Insights Steering Committee members. Participants were asked to provide their perspective of the short-term (1-2 years), medium-term (3-5 years), and long-term (5+ years) soybean industry outlook among their areas of expertise within the five primary focus areas, and 25 sub-factors, to help determine whether the outlook for that factor is unfavorable, neutral or stays the same, or favorable.

The results of this Perspectives Survey indicated a favorable environment for U.S. soybeans in both the short and long term, with a key factor being a mostly favorable outlook for domestic and international demand of both meal and oil. Experts specifically called out soybean meal as the most favorable areas for U.S. soy, due to continued growth in emerging economies.

- U.S. meal demand received a significant favorable increase this round from the fall 2013 round.
- Transportation infrastructure took a turn for the worse to unfavorable compared to fall 2013 ratings.
- The areas of soybean oil, soybean meal and customer focus received a favorable outlook.
- Experts identified challenges in areas such as water management issues, U.S. laws, consumer pressures for organics and infrastructure.

Based on the survey results, the Soy Insights Steering Committee then prioritized the top trends currently impacting the soy industry.

The top trends for each sub-factor include:

- General Industry: Technology adoption will continue to be driven by pressure for efficiency and productivity. Integration will be key between genetics, big data, precision agriculture and biologicals.
- Soybean Meal: Recognition of the need to improve the nutritional bundle.
- Soybean Oil: Global regulatory is blocking advanced traits (high oleic and others).
- Customer Focus: Recognition of a need for sustainability messaging, including segmented messaging for different audiences.
- Freedom to Operate: Tougher market with multiple levels of regulations.

GENERAL INDUSTRY

Overview

General Industry covers a wide variety of subjects related to the U.S. soybean value chain. Although receiving an overall neutral to positive outlook, experts did identify water availability and short-term farm profitability as unfavorable for the soy industry. While most areas remained consistent, experts were more pessimistic about farm profitability than the previous Perspectives Survey (published September 2014).

- Technology Adoption (advanced traits, precision, etc.) received strong support from both experts and committee members for an increasingly favorable outlook through five plus years.
 - New traits that address herbicide resistance, drought and have advanced protein content will have a big impact on the industry. Developing a bean with a shorter growing season could help expand soy acreage.
 - Precision will play an increasingly important role, especially mapping developments.
 - However, experts noted that U.S. regulatory approval processes need to be efficient to avoid slowing offshore approval.
 - Many new technologies also could be costly, which could limit adoption by growers.
- Survey respondents also had a favorable outlook for increasing demand by U.S. Consumer Demand for Soy Foods in the medium and long term.
 - Meat substitutes were perceived to be the biggest area of opportunity as soy milk is on the decline and frying oil is losing market share to palm.
- The outlook for U.S. Farm Profitability was slightly more negative for this round of interviews than last, especially in the short and medium term.
 - Soy Insights Steering Committee members were more optimistic than other respondents about farm profitability.
 - A glut in production is a driver of lower profitability.
 - Discussions also included land rent and if those could be maintained at the current level.
- Water Management Issues will continue to increase for the U.S. agriculture industry. Key topics mentioned in the survey were water access and availability, runoff and water quality, climate change, regulations, rural vs. urban use, and drainage/tiling management.

GENERAL INDUSTRY (continued)

Sub-factors	1 – 2 Years			3 – 5 Years			5+ Years		
	'13 H2	'14 H1	'14 H2	'13 H2	'14 H1	'14 H2	'13 H2	'14 H1	'14 H2
US Technology Adoption	2.60	2.70	2.55	2.96	2.87	2.66	3.00	2.92	2.74
US Farm Profitability	1.48	1.92	1.62	2.45	2.44	2.32	2.81	2.64	2.70
US Soy Acreage	2.61	2.44		2.33	2.33		2.61	2.31	
US Pest Control	1.80	1.74	1.79	1.80	1.89	1.88	1.94	1.89	1.98
US Water Access	1.90	1.62	1.43	1.5	1.33	1.20	1.5	1.16	1.13
US Soy Food Demand	2.35	2.33	2.31	2.54	2.61	2.52	2.75	2.70	2.65



SOYBEAN MEAL

Overview

Participants gave a positive outlook for U.S. Soybean Meal, especially international demand and meal technology.

- International Soybean Meal Demand received very high scores for all time periods.
 - Increasing demand for animal protein in the developing and developed economies will continue to provide growth opportunities for soybean meal.
 - China will continue to be a driver, but experts also noted that China’s involvement in Africa should be monitored.
 - The Panama Canal will make South American meal cheaper.
- Soybean Meal Technology is another area to which the experts gave a positive outlook over all time periods.
- Respondents, especially the Soy Insights Steering Committee members, indicated a declining outlook in the competitiveness of U.S. Meal vs. Other Countries.
 - The outlook was attributed to a declining infrastructure system and lower protein level.
 - Maintaining and improving the meal quality, including increasing protein and making a more digestible meal, and improving the taste profile are critical.
 - Measurement technology will be important, especially to move to component pricing.

Sub-factors	1 – 2 Years			3 – 5 Years			5+ Years		
	'13 H2	'14 H1	'14 H2	'13 H2	'14 H1	'14 H2	'13 H1	'14 H1	'14 H2
US Meal Demand	2.29	2.43	2.71	2.57	2.29	2.64	2.29	2.57	2.57
Outside US Meal Demand	3.00	3.00	2.93	3.00	3.00	2.93	3.00	3.00	2.86
US Meal vs Other Crops	2.00	1.86	2.23	2.34	1.86	2.31	2.34	1.86	2.51
US Meal vs. Other Countries	2.00	1.86	2.00	2.20	1.86	1.93	2.40	2.00	1.92
Meal Technology	2.43	2.15	2.46	2.80	2.43	2.62	2.83	2.50	2.85



SOYBEAN OIL

Overview

Overall, Soybean Oil received a neutral to positive outlook for the U.S. soybean industry over the next five years and beyond. There were areas of slight concern for the outlook for U.S. Oil vs. Other Countries and U.S. Oil vs. Other Crops.

- Experts noted that U.S. Oil vs. Other Crops will be an area to watch.
 - Canola has branded its oil as the “healthy oil.”
 - Palm oil is picking up share globally and in industrial applications.
 - High oleic could help gain back market share since it has a better taste, stability and performance.
- U.S. Oil vs. Other Countries did receive a moderately unfavorable outlook. Participants primarily attributed this to declining U.S. infrastructure system and subsidies for Argentinian soybeans, which make those beans cheaper.
- The outlook for Outside U.S. Oil Demand moved to neutral for 1-2 years, but remains strong for the medium- and long-term time frames.
 - Population growth in China and the rest of Asia, especially in the middle class, could increase demand for feed use, thus increasing oil demand as well.
 - Biofuels could also increase international demand, especially in the European Union and Russia.
 - The short-term outlook for biofuels is unfavorable due to uncertainty regarding the Renewable Fuel Standard, but improves greatly over the long term.

Sub-factors	1 – 2 Years			3 – 5 Years			5+ Years		
	'13 H2	'14 H1	'14 H2	'13 H2	'14 H1	'14 H2	'13 H1	'14 H1	'14 H2
US Oil Demand	2.11	1.66	1.89	2.33	2.17	2.44	3.00	2.33	2.89
Outside US Oil Demand	2.37	2.50	2.22	2.86	2.50	2.67	3.00	2.67	2.67
US Oil vs. Other Crops	2.5	2.17	1.90	2.5	2.33	2.00	2.71	2.40	2.20
US Oil vs. Other Countries	2.29	1.83	2.10	2.43	1.50	2.30	2.50	2.00	2.10
Oil Technology	2.62	2.33	2.50	3.00	2.83	2.80	3.00	2.83	2.70

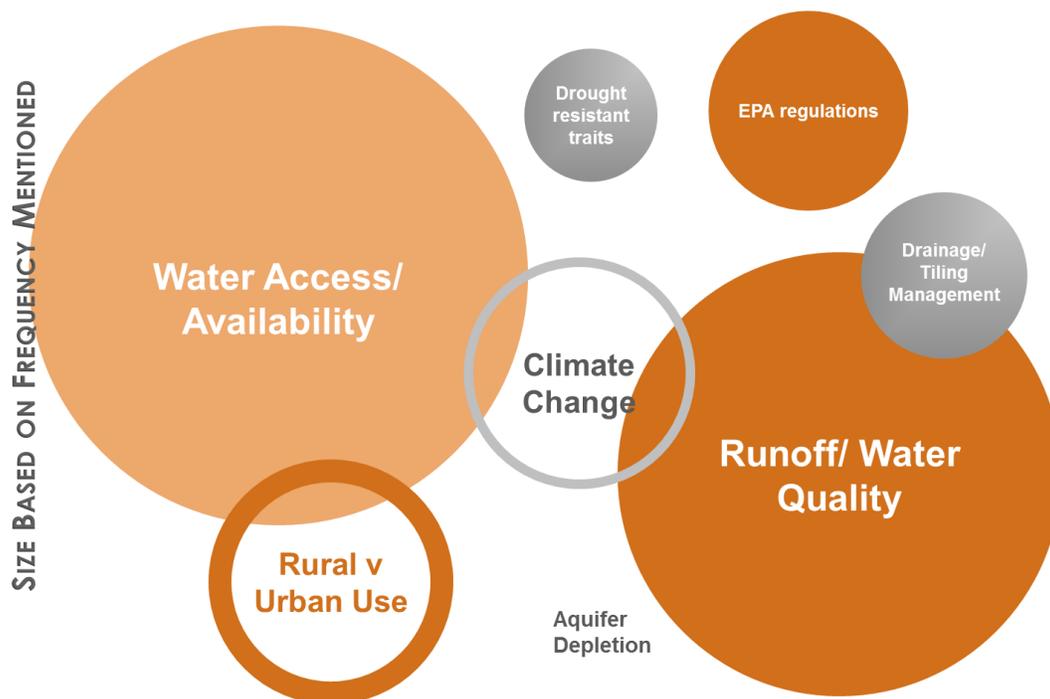


FREEDOM TO OPERATE

Overview

As in April 2014 and September 2014, participants again forecasted an unfavorable outlook for several sub-factors in the short, medium and long term within the Freedom to Operate category.

- Consumer Pressures to label products containing ingredients derived from GMOs is one area in which experts see improvement in the medium and long term.
 - Some experts expressed a belief that there will be a voluntary federal mandate, while others predict individual companies will continue to voluntarily label products. Many experts and committee members believe the food industry should label products containing ingredients derived from GMO crops and forgo a defensive mindset.
 - On a related note, experts saw demand for organic, local and traceable food will continue to increase as Americans are more interested in how their food is grown and want more information.
- Favorability of International Laws reported a neutral outlook in all time periods.
 - Some anticipated key players could become more accepting of GMOs (China, Europe, Russia, Ukraine).
 - Experts mentioned new trade policies that could make exports easier, such as the Trans-Atlantic Trade Partnership.
 - Sustainability was also a hot topic with many questions and uncertainties.
- Several and diverse issues illustrated below were raised regarding Water Rights/Regulation. (Note: The circle size indicates the frequency of mentions.)



FREEDOM TO OPERATE (continued)

- Topics that contributed to the declining outlook for Favorability of U.S. Laws and Regulations, included increased EPA regulations on water quality, pesticide use laws, UAV/drones, conservation, biotechnology approval, and the Renewable Fuel Standard.

Sub-factors	1 – 2 Years			3 – 5 Years			5+ Years		
	'13 H2	'14 H1	'14 H2	'13 H2	'14 H1	'14 H2	'13 H1	'14 H1	'14 H2
Favorability of US laws	1.54	1.61	1.67	1.38	1.29	1.50	1.25	1.50	1.39
Favorability of International Laws	1.92	1.90	1.82	2.08	1.88	1.76	2.17	2.00	1.82
Water Rights/Regulation	1.55	1.40	1.24	1.1	1.13	1.06	1.1	1.13	1.00
Consumer Preference for Organic, Local, etc.	1.31	1.17	1.33	1.31	1.14	1.35	2.46	1.40	1.45
Consumer Pressure for GMO Labeling		1.24	1.32		1.74	1.68		2.20	2.03
US Transportation Infrastructure	2.00	1.67	1.47	1.85	1.67	1.56	2.15	2.30	2.13



CUSTOMER FOCUS

Overview

Survey participants noted aspects of Customer Focus provide both a positive and neutral outlook for the U.S. soy industry, with the exception of component pricing adoption and pressure for GMO labeling in the short term, and consumer pressure for organic over all time periods.

- Consumer Demand for Soy had a favorable outlook over the next five plus years.
 - Experts see the largest growth opportunities for soy in alternative protein, oil and industrial markets.
- Although it has a less favorable short-term outlook, Component Pricing continues to be a key area of discussion. Steering Committee members had a more favorable outlook in all three time periods for component pricing adoption.
 - It would require a total revamp of the current commodity system – starting with farmers to grow for more than yield, to measurement, to processor segregation.
 - The Soy Insights Steering Committee also highlighted the need to get all aspects of the value chain on board, including customers, processors and farmers. All parties need to be aware of, and see the value in, this model.
- A key positive point to highlight in this area is the impact and influence that experts foresee China to continue to play in the U.S. soy industry.
 - Population growth and increasing income will drive continued demand.
 - Most participants don't see much change in China's regulatory/political environment.
 - China could tighten the supply loop and invest more directly to ensure supply.

Sub-factors	1 – 2 Years			3 – 5 Years			5+ Years		
	'13 H2	'14 H1	'14 H2	'13 H2	'14 H1	'14 H2	'13 H1	'14 H1	'14 H2
US Soy Differentiation	2.14	2.18	2.10	2.00	2.36	2.20	2.17	2.44	2.15
Component Pricing	1.86	1.54	1.15	2.14	2.27	1.75	2.50	2.45	2.26
Consumer Demand For Soy	2.56	2.58	2.40	2.78	2.75	2.65	2.75	2.92	2.70
China Impact/Influence	3.00	2.72	2.60	2.87	2.81	2.68	2.86	2.80	2.72
Consumer Preference for Organic, Local, etc.	1.31	1.17	1.33	1.31	1.14	1.35	2.46	1.40	1.45
Consumer Pressure for GMO Labeling		1.24	1.32		1.74	1.68		2.20	2.03

