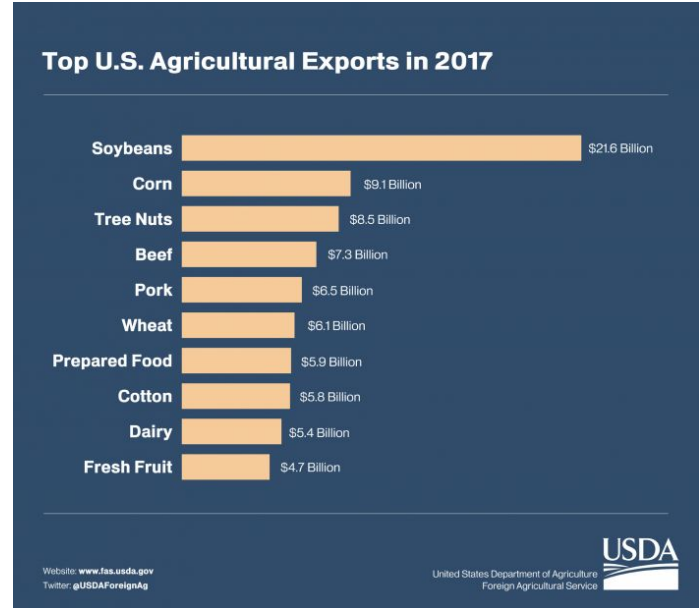


Soybeans

Caleb Lambert, Cody Lauterbach

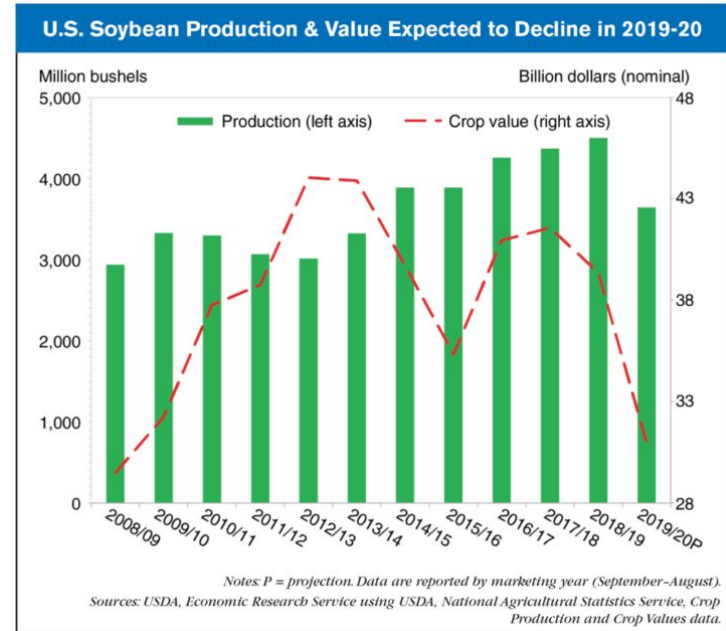
Introduction

- Largest Acreage Crop in NC
 - totaling 36,000 acres
- The soybeans can be broken down into 2 parts
 - The Meal (80%)
 - 97% goes into animal feed
 - 3% goes into Food Products
 - The oil (20%)
 - 68% going into food either as an ingredient or being used for baking/frying
 - 25% goes into the biofuel industry
 - 7% goes for various industrial uses
- Soybeans are the top US agricultural export
 - Make up \$21.6 Billion of the total agricultural export.



How much is produced?

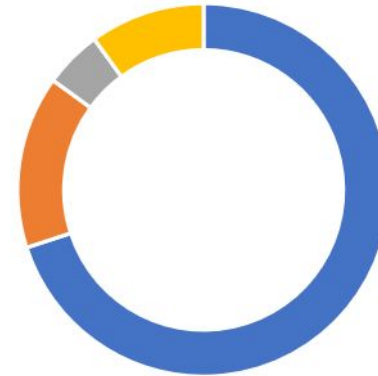
- The United States produces nearly 90 million acres of soybeans annually.
- Last year soybeans acreage surpassed corn for the first time since 1983.
- American farmers produced nearly \$41 billion dollars worth of soy in 2017.
- It is the United States biggest crop by acres planted.
- Experts predict a decline in soybean production in the coming months



What are the soybeans used for?

- Over 70 percent of the soybeans produced in the United States are used for animal feed.
 - The largest consumers of the animal feed are respectively:
 - i. Poultry Farms
 - ii. Swine farms
 - iii. Dairies
 - iv. Beef Cattle Farms
 - v. aquaculture
- Approximately 15 percent goes to human consumption (primarily cooking oils).
- 5 percent is used for biodiesel.
- The remainder of soybeans is used for a variety of uses such as industrial applications and organic foods.

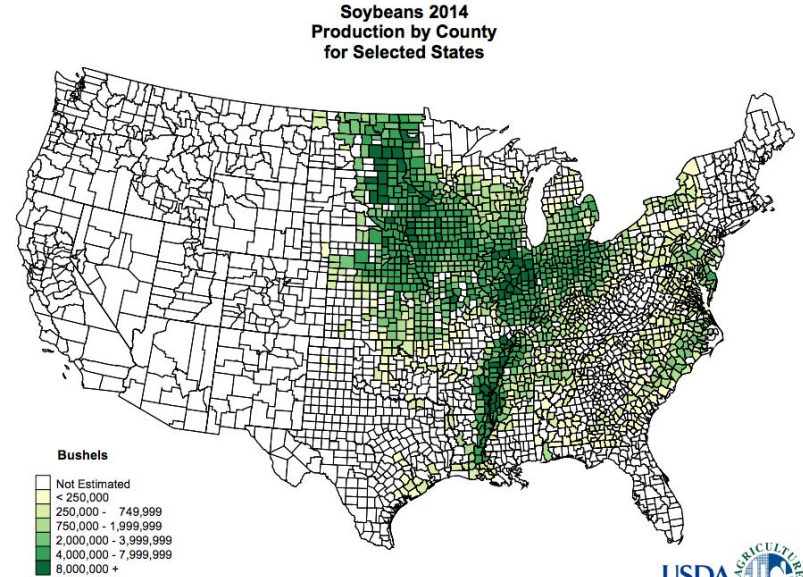
Uses of Soybeans



■ Animal Feed ■ Human Consumption ■ Biodiesel ■ Miscellaneous

Where is it planted?

- The heaviest soy production is planted around the Minnesota-North Dakota border, and heading down through the eastern Dakotas, Iowa, Illinois, Indiana and Ohio.
- There is a notable amount of soybean production in the Mississippi River region spanning from Missouri to Louisiana.
- The next largest region of production would be on the eastern shore stretching from the Carolinas up through Maryland.



U.S. Department of Agriculture, National Agricultural Statistics Service



Planting Soybeans

- Temperature is a big factor when planting soybeans and the goal is to plant them when it gets to around 50 degrees.
- The height at which soybeans are planted is determined on the temperature as well as the moisture.



How long are soybeans in the field?

- Soybeans need three to five months from seed to harvest depending what variety you are sowing and how warm the climate is. The best time to plant is in May or when soils are 55 to 60 degrees Fahrenheit. Home-cultivated soybeans will generally sprout in four to seven days.
- However if you plant treated seed this could speed up this process.

How and when are they harvested?

- Soybean combine harvester is a kind of combine harvester exclusively used for soybean harvesting. The machine can realize the process of soybean stalk cutting and threshing at the same time.
- The soybean plants and pods when mature, should be brown or tan in color and the seeds should rattle in the pod. When the crop is mature and ready for harvest the seeds would be oval shape and firm.



Current State of the Soybean Market

Over half of the United States soybean production is shipped overseas which means we heavily rely on Countries buying our beans. While the Trump administration's tariffs on imported goods will eventually be good for the United States it has hurt the soybean market with other countries imposing tariffs on our soybeans. As a response the Trump administration put together a farm aid package worth nearly \$12 billion dollars to help the farmers out.

Current prices of Soybeans

The current price of soybeans is \$842.50

- This value of soybeans has decreased since the start of 2020 which opened with a price of \$956.15
- Some of the factors that are/ have influenced the price includes:
 - Tariffs by the US Government
 - COVID-19

Soybeans (Jul'20) (@S:1:Chicago Board of Trade)

*Data is delayed | USD

Last | 9:25:16 PM EDT

Volume

846.50 **+4.00 (+0.47%)**

3,454

1D

5D

1M

3M

6M

YTD

1Y

5Y

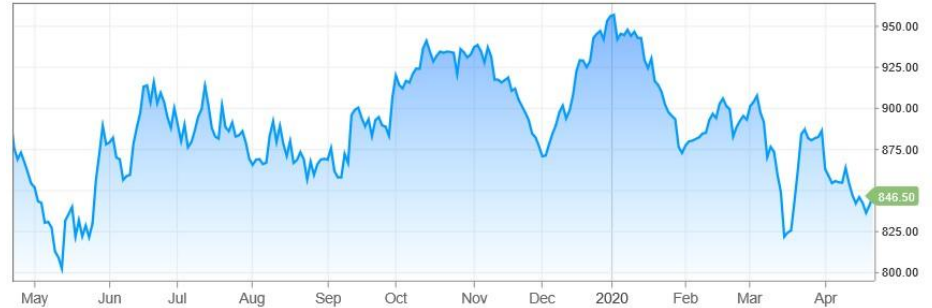
ALL

+ Comparison

1D

Display

Studies



[+ WATCHLIST](#)

Current Soybean importers

- Last year the united states exported 52.3 million metric tons of soy
 - This was a 13.2% increase from 2018
- The largest importer of soy was China
 - imported 174% more soy last year then the year before
- The EU was the second largest importer
 - The EU imported 35% less soy last year

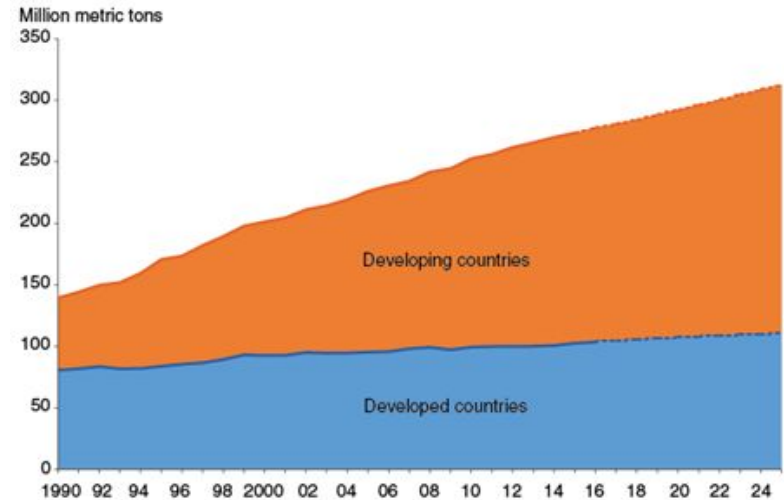
Top 10 U.S. Export Destinations For Soybeans				
World Total		46,195,618	52,287,140	13.19%
Rank	Country	2018	2019	Change
1	China	8,235,317	22,575,940	174.14%
2	EU-28	8,728,766	5,642,050	-35.36%
3	Mexico	4,814,461	5,145,404	6.87%
4	Egypt	3,186,587	2,789,926	-12.45%
5	Japan	2,268,969	2,451,291	8.04%
6	Indonesia	2,636,629	2,420,711	-8.19%
7	Taiwan	2,261,542	1,845,002	-18.42%
8	Thailand	1,600,245	1,428,287	-10.75%
9	Bangladesh	1,192,983	1,136,758	-4.71%
10	Pakistan	1,733,277	1,130,977	-34.75%

Source: ERS/USDA (metric tons); January - December

Developing countries effect on soy

- As developing countries start to see a rise in their income, there is a rise in the demand for meat
- The increased in demand for meat is correlated with an increased demand for soybean based animal feed.

Beef, pork, and poultry production rapidly expands in developing countries



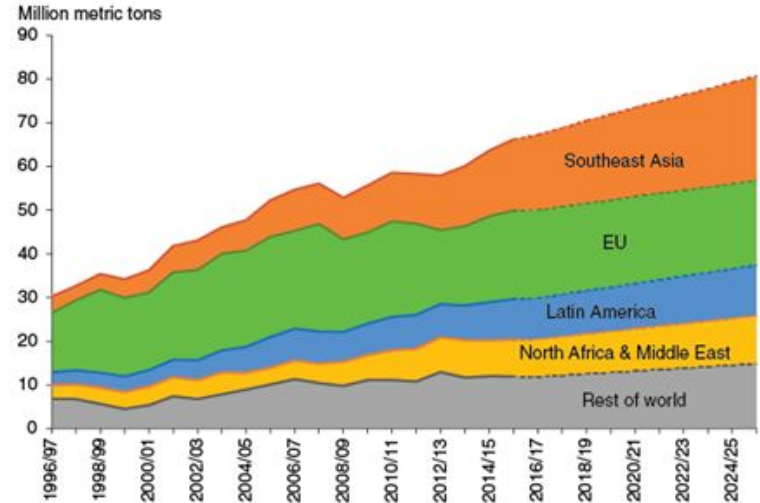
Note: Dashed lines represent projection period.

Source: USDA, Economic Research Service based on USDA's 2016 international baseline data, available at www.ers.usda.gov/data-products/international-baseline-data.aspx.

Developing countries effect on soymeal

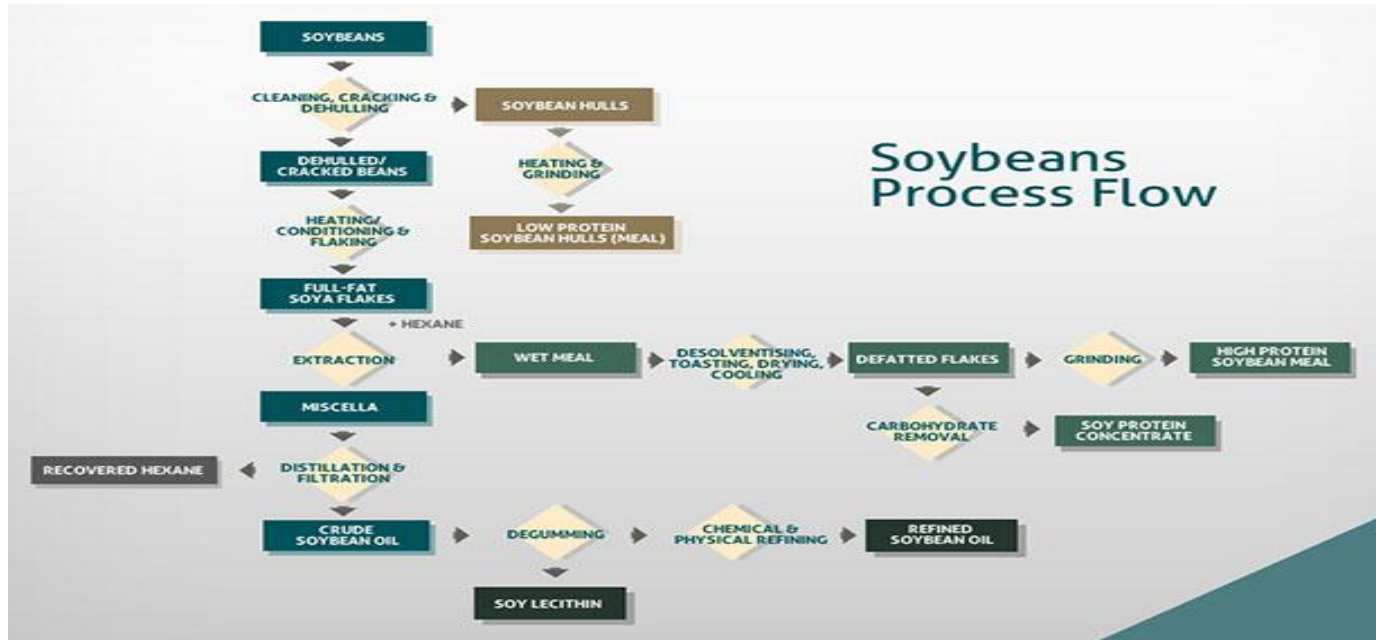
- It is expected that we will see a large increase in the number of soybean meal imports by countries in South Asia, as they are expected to surpass the EU this year or the next
- Some of the top of economic countries in south asia are:
 - Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam

Southeast Asia soybean meal imports expected to surpass those of the EU by 2020/21



Note: Dashed lines represent the projection period. EU = European Union.
Source: USDA, Economic Research Service using data from USDA Agricultural Projections to 2025, February 2016.

Processing of soybeans



Current events in the Soy industry

- <https://www.msn.com/en-us/money/markets/with-the-loss-of-coffeehouse-lattes-and-school-lunches-dairy-farmers-face-tough-choices-corn-and-soybeans-are-also-hurting-in-an-economy-battered-by-coronavirus/ar-BB12GRdQ>
 - Much like many of the other industries the soybean industry has been heavily lacking in the
- <https://www.hoosieragtoday.com/using-enlist-e3-soybeans-part-weed-control-system/>
 - New line of soybeans that are resistant to certain herbicides to help manage weeds better in the fields



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Sources

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- <https://beef2live.com/story-top-10-export-destinations-soybeans-0-122616>
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Questions?