

# 2017 SOYSTATS

A REFERENCE GUIDE TO IMPORTANT  
SOYBEAN FACTS AND FIGURES

A Publication of the  
American Soybean Association

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# SOYSTATS 2017

**A publication of the American Soybean Association**

Welcome to the 2017 edition of SoyStats®, your comprehensive resource for statistical information about the U.S. soybean industry and its relationship to global oilseed production.

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## **SOYBEAN HIGHLIGHTS FROM 2016:**

- U.S. soybean farmers planted 83.4 million acres (33.8 million hectares).
- U.S. soybean production was 4.31 billion bushels.
- Average yield in the U.S. was 52.1 bushels per acre.
- Total value of the U.S. soybean crop was \$40.94 billion.
- The U.S. exported 2.03 billion bushels of soybeans, or 47 percent of total production.
- The U.S. was first in world soybean production with 4.31 billion bushels, followed by Brazil at 3.97.
- Soybeans represented 61 percent of the world's oilseed production.
- U.S. biodiesel production was 1.87 billion gallons.

## **SOYBEAN FACTS:**

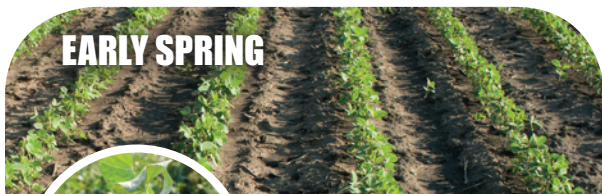
- A bushel of soybeans weighs 60 lbs. (27.22 kg) and produces about 11 pounds of oil and 48 pounds of protein-rich meal.
- The soybean plant is a legume related to peas, clover and alfalfa.
- Each soybean plant generally produces 60 to 80 pods, each holding three pea-sized beans.

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# Soybean Life Cycle in Pictures



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## Composition of a **Soybean**

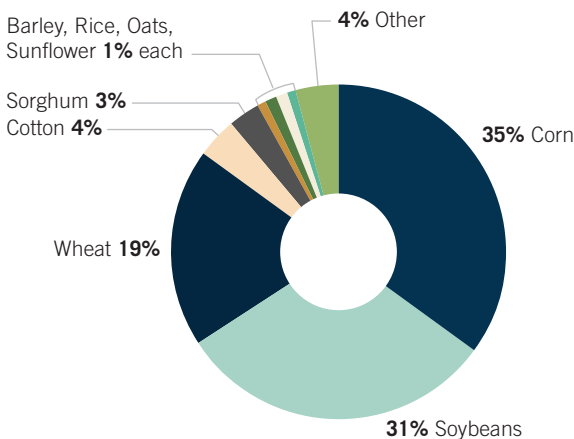
In processing, soybeans are cleaned, cracked, dehulled and rolled into flakes. This ruptures the oil cells for efficient extraction to separate the oil and meal components.

**Soybean oil** finds its way into food products such as margarine, salad dressings and cooking oils, and industrial products such as plastics and biodiesel fuel. **Lecithin**, extracted from soybean oil, is used for everything from pharmaceuticals to protective coatings. It is a natural emulsifier and lubricant. Lecithin is used, for example, to keep the chocolate and cocoa butter in a candy bar from separating.

After removal of the soybean oil, the remaining flakes can be processed into various edible **soy protein** products, or used to produce **soybean meal** for animal feeds. The dry (solid) portion of the bean provides a host of edible products.

**Soy flour** and grits are used in the commercial baking industry. They aid in dough conditioning and bleaching. Their excellent moisture-holding qualities also help retard staling. **Soy hulls** are processed into fiber bran breads, cereal and snacks.

# U.S. Crop Area Planted 2016



Source: USDA, NASS. Data does not include hay.

## U.S./Metric Conversion Table

(A bushel of soybeans weighs 60 pounds)

1 metric ton = 36.74 bushels of soybeans

1 metric ton = 2,200 pounds of soybeans

1 metric ton = 1.1 short tons of soybeans

1 hectare = 2.471 acres

## Source Guide

### CONAB

Brazil's National Food Supply Agency

### ERS

Economic Research Service

### FAS

Foreign Agricultural Service

### ISAAA

International Service for the Acquisition of Agri-biotech Applications

### NASS

National Agricultural Statistics Service

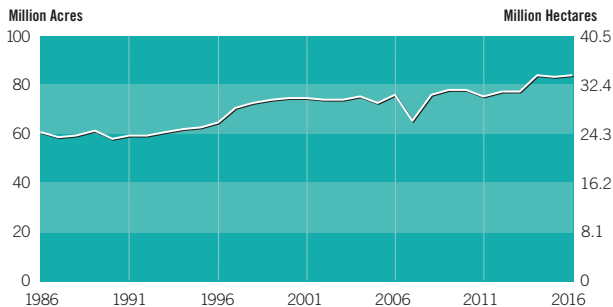
### USDA

United States Department of Agriculture

### WAOB

World Agricultural Outlook Board

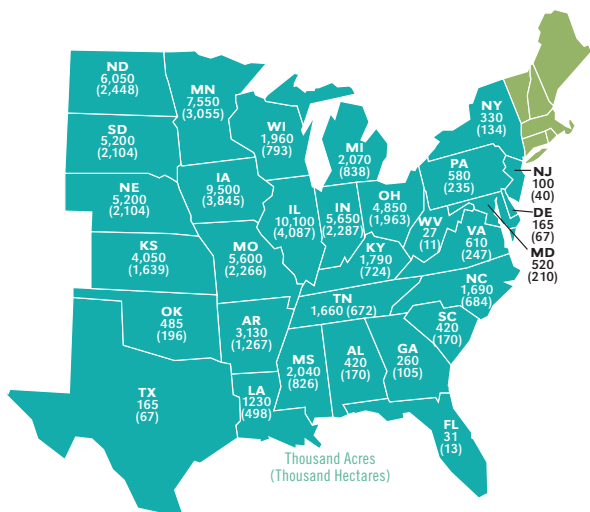
# U.S. Soybean Area Planted 1987-2016



Year	Million Acres	Million Hectares	Year	Million Acres	Million Hectares
<b>1987</b>	58.2	23.6	<b>2002</b>	73.9	29.9
<b>1988</b>	58.8	23.8	<b>2003</b>	73.4	29.7
<b>1989</b>	60.8	24.6	<b>2004</b>	75.2	30.4
<b>1990</b>	57.8	23.4	<b>2005</b>	72.0	29.1
<b>1991</b>	59.2	24.0	<b>2006</b>	75.5	30.6
<b>1992</b>	59.2	24.0	<b>2007</b>	64.7	26.2
<b>1993</b>	60.1	24.3	<b>2008</b>	75.7	30.6
<b>1994</b>	61.6	24.9	<b>2009</b>	77.5	31.4
<b>1995</b>	62.5	25.3	<b>2010</b>	77.4	31.3
<b>1996</b>	64.2	26.0	<b>2011</b>	75.0	30.4
<b>1997</b>	70.0	28.3	<b>2012</b>	77.2	31.2
<b>1998</b>	72.0	29.1	<b>2013</b>	76.8	31.1
<b>1999</b>	73.7	29.8	<b>2014</b>	83.3	33.7
<b>2000</b>	74.3	30.1	<b>2015</b>	82.7	33.4
<b>2001</b>	74.1	30.0	<b>2016</b>	83.4	33.8

Source: USDA, NASS

# U.S. Soybean Area Planted by State 2016

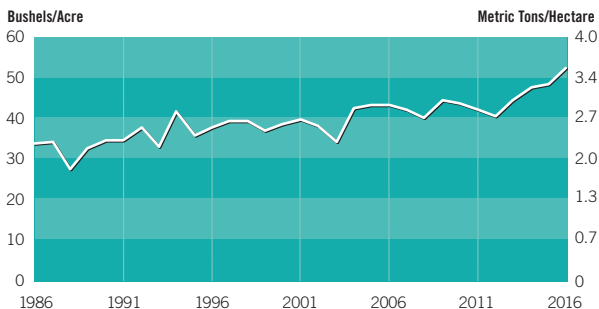


State	Thousand Acres	Thousand Hectares
Alabama	420	170
Arkansas	3,130	1267
Delaware	165	67
Florida	31	13
Georgia	260	105
Illinois	10,100	4087
Indiana	5,650	2287
Iowa	9,500	3845
Kansas	4,050	1639
Kentucky	1,790	724
Louisiana	1,230	498
Maryland	520	210
Michigan	2,070	838
Minnesota	7,550	3055
Mississippi	2,040	826
Missouri	5,600	2266

State	Thousand Acres	Thousand Hectares
Nebraska	5,200	2104
New Jersey	100	40
New York	330	134
N. Carolina	1,690	684
N. Dakota	6,050	2448
Ohio	4,850	1963
Oklahoma	485	196
Pennsylvania	580	235
S. Carolina	420	170
S. Dakota	5,200	2104
Tennessee	1,660	672
Texas	165	67
Virginia	610	247
W. Virginia	27	11
Wisconsin	1,960	793

Source: USDA, NASS

# U.S. Soybean Yield 1987-2016



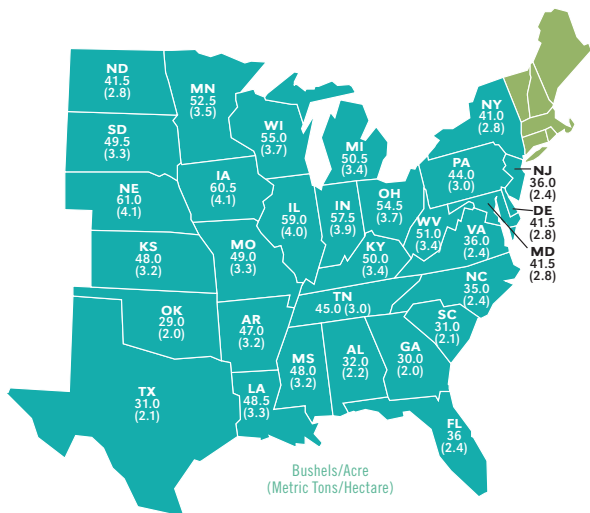
Year	Bushels/ Acres	Metric Ton/ Hectare
1987	33.9	2.3
1988	27.0	1.8
1989	32.3	2.2
1990	34.1	2.3
1991	34.2	2.3
1992	37.6	2.5
1993	32.6	2.2
1994	41.4	2.8
1995	35.3	2.4
1996	37.6	2.5
1997	38.9	2.6
1998	38.9	2.6
1999	36.6	2.5
2000	38.1	2.6
2001	39.6	2.7

Year	Bushels/ Acres	Metric Ton/ Hectare
2002	38.0	2.6
2003	33.9	2.3
2004	42.2	2.8
2005	43.1	2.9
2006	42.9	2.9
2007	41.7	2.8
2008	39.7	2.7
2009	44.0	3.0
2010	43.5	2.9
2011	41.9	2.8
2012	40.0	2.7
2013	44.0	3.0
2014	47.5	3.2
2015	48.0	3.2
2016	52.1	3.5

Source: USDA, NASS



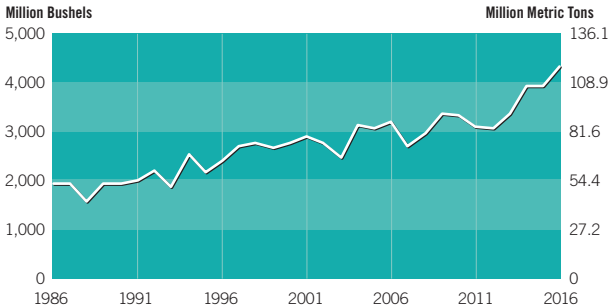
# U.S. Soybean Yield by State 2016



State	Bushels/Acre	Metric Tons/Hectare	State	Bushels/Acre	Metric Tons/Hectare
Alabama	32.0	2.2	Nebraska	61.0	4.1
Arkansas	47.0	3.2	New Jersey	36.0	2.4
Delaware	41.5	2.8	New York	41.0	2.8
Florida	36.0	2.4	N. Carolina	35.0	2.4
Georgia	30.0	2.0	N. Dakota	41.5	2.8
Illinois	59.0	4.0	Ohio	54.5	3.7
Indiana	57.5	3.9	Oklahoma	29.0	2.0
Iowa	60.5	4.1	Pennsylvania	44.0	3.0
Kansas	48.0	3.2	S. Carolina	31.0	2.1
Kentucky	50.0	3.4	S. Dakota	49.5	3.3
Louisiana	48.5	3.3	Tennessee	45.0	3.0
Maryland	41.5	2.8	Texas	31.0	2.1
Michigan	50.5	3.4	Virginia	36.0	2.4
Minnesota	52.5	3.5	W. Virginia	51.0	3.4
Mississippi	48.0	3.2	Wisconsin	55.0	3.7
Missouri	49.0	3.3			

Source: USDA, NASS

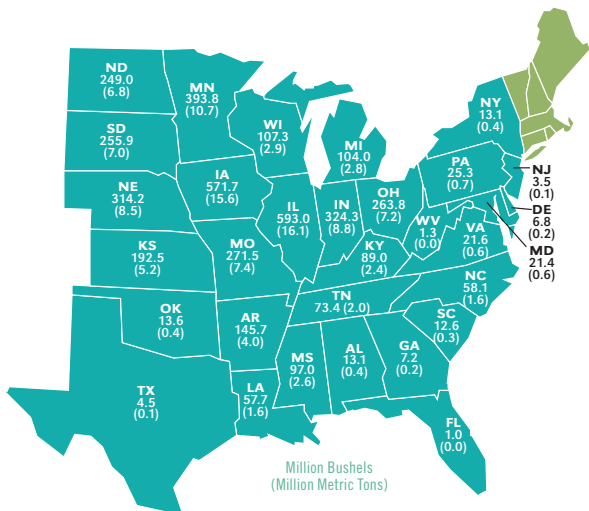
# U.S. Soybean Production 1987-2016



Year	Million Bushels	Million Metric Tons	Year	Million Bushels	Million Metric Tons
<b>1987</b>	1,938	52.7	<b>2002</b>	2,756	75.0
<b>1988</b>	1,549	42.2	<b>2003</b>	2,454	66.8
<b>1989</b>	1,924	52.4	<b>2004</b>	3,124	85.0
<b>1990</b>	1,926	52.4	<b>2005</b>	3,068	83.5
<b>1991</b>	1,987	54.1	<b>2006</b>	3,197	87.0
<b>1992</b>	2,190	59.6	<b>2007</b>	2,677	72.9
<b>1993</b>	1,871	50.9	<b>2008</b>	2,967	80.7
<b>1994</b>	2,515	68.4	<b>2009</b>	3,359	91.4
<b>1995</b>	2,174	59.2	<b>2010</b>	3,329	90.6
<b>1996</b>	2,380	64.8	<b>2011</b>	3,094	84.2
<b>1997</b>	2,689	73.2	<b>2012</b>	3,042	82.8
<b>1998</b>	2,741	74.6	<b>2013</b>	3,358	91.4
<b>1999</b>	2,654	72.2	<b>2014</b>	3,927	106.9
<b>2000</b>	2,758	75.1	<b>2015</b>	3,926	106.8
<b>2001</b>	2,891	78.7	<b>2016</b>	4,307	117.2

Source: USDA, NASS

# U.S. Soybean Production by State 2016

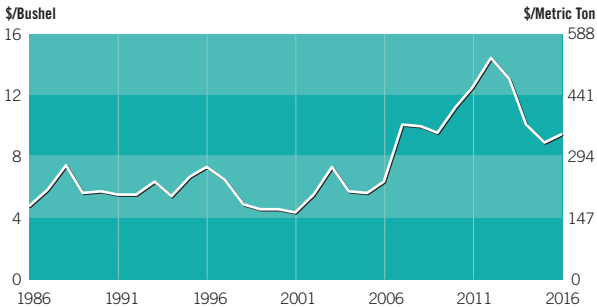


State	Million Bushels	Million Metric Tons
Alabama	13.1	0.4
Arkansas	145.7	4.0
Delaware	6.8	0.2
Florida	1.0	0.0
Georgia	7.2	0.2
Illinois	593.0	16.1
Indiana	324.3	8.8
Iowa	571.7	15.6
Kansas	192.5	5.2
Kentucky	89.0	2.4
Louisiana	57.7	1.6
Michigan	104.0	2.8
Minnesota	393.8	10.7
Mississippi	97.0	2.6
Missouri	271.5	7.4

State	Million Bushels	Million Metric Tons
Nebraska	314.2	8.5
New Jersey	3.5	0.1
New York	13.1	0.4
N. Carolina	58.1	1.6
N. Dakota	249.0	6.8
Ohio	263.8	7.2
Oklahoma	13.6	0.4
Pennsylvania	25.3	0.7
S. Carolina	12.6	0.3
S. Dakota	255.9	7.0
Tennessee	73.4	2.0
Texas	4.5	0.1
Virginia	21.6	0.6
W. Virginia	1.3	0.0
Wisconsin	107.3	2.9

Source: USDA, NASS

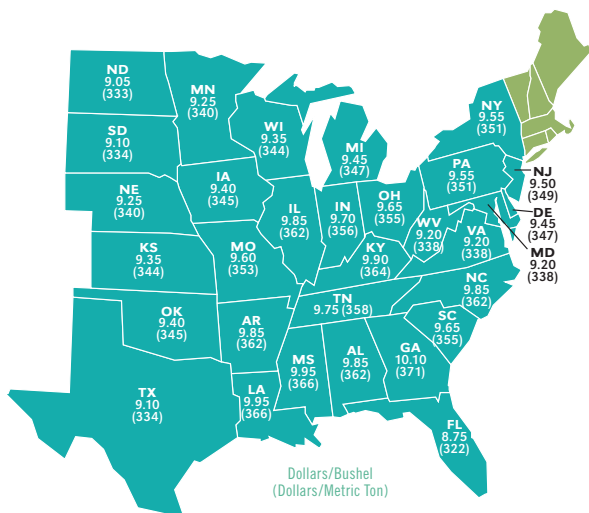
# U.S. Soybean Prices Paid to Farmers 1987-2016



Year	Dollars/ Bushels	Dollars/ Metric Ton	Year	Dollars/ Bushels	Dollars/ Metric Ton
1987	5.88	216	2002	5.53	203
1988	7.42	273	2003	7.34	270
1989	5.69	209	2004	5.74	211
1990	5.74	211	2005	5.66	208
1991	5.58	205	2006	6.43	236
1992	5.56	204	2007	10.10	371
1993	6.40	235	2008	9.97	366
1994	5.48	201	2009	9.59	352
1995	6.72	247	2010	11.30	415
1996	7.35	270	2011	12.50	459
1997	6.47	238	2012	14.40	529
1998	4.93	181	2013	13.00	478
1999	4.63	170	2014	10.10	371
2000	4.54	167	2015	8.95	329
2001	4.38	161	2016	9.50	349

Source: USDA, NASS

# U.S. Soybean Price to Farmers by State 2016

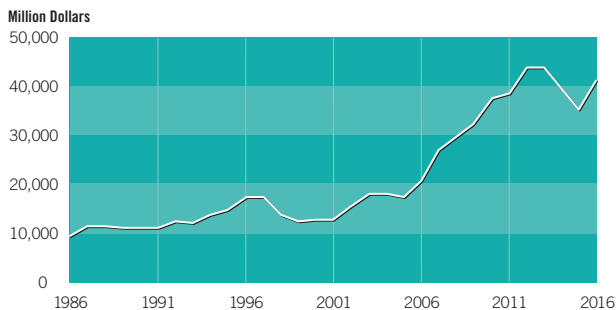


State	Dollars/Bushel	Dollars/Metric Ton
Alabama	9.85	362
Arkansas	9.85	362
Delaware	9.45	347
Florida	8.75	322
Georgia	10.10	371
Illinois	9.85	362
Indiana	9.70	356
Iowa	9.40	345
Kansas	9.35	344
Kentucky	9.90	364
Louisiana	9.95	366
Maryland	9.20	338
Michigan	9.45	347
Minnesota	9.25	340
Mississippi	9.95	366
Missouri	9.60	353

State	Dollars/Bushel	Dollars/Metric Ton
Nebraska	9.25	340
New Jersey	9.50	349
New York	9.55	351
N. Carolina	9.85	362
N. Dakota	9.05	333
Ohio	9.65	355
Oklahoma	9.40	345
Pennsylvania	9.55	351
S. Carolina	9.65	355
S. Dakota	9.10	334
Tennessee	9.75	358
Texas	9.10	334
Virginia	9.20	338
W. Virginia	9.20	338
Wisconsin	9.35	344

Source: USDA, NASS

# U.S. Soybean Crop Value 1987-2016



Year	Million Dollars	Year	Million Dollars
<b>1987</b>	11,394	<b>2002</b>	15,240
<b>1988</b>	11,492	<b>2003</b>	18,012
<b>1989</b>	10,916	<b>2004</b>	17,932
<b>1990</b>	11,042	<b>2005</b>	17,337
<b>1991</b>	11,087	<b>2006</b>	20,499
<b>1992</b>	12,176	<b>2007</b>	26,884
<b>1993</b>	11,974	<b>2008</b>	29,458
<b>1994</b>	13,756	<b>2009</b>	32,145
<b>1995</b>	14,617	<b>2010</b>	37,547
<b>1996</b>	17,400	<b>2011</b>	38,498
<b>1997</b>	17,373	<b>2012</b>	43,723
<b>1998</b>	13,513	<b>2013</b>	43,583
<b>1999</b>	12,288	<b>2014</b>	39,475
<b>2000</b>	12,521	<b>2015</b>	35,192
<b>2001</b>	12,663	<b>2016</b>	40,944

Source: USDA, NASS

# U.S. Soybean Crop Value by State 2016

State	Million Dollars	State	Million Dollars
Alabama	129	Nebraska	2,906
Arkansas	1,435	New Jersey	34
Delaware	64	New York	125
Florida	9	N. Carolina	572
Georgia	73	N. Dakota	2,253
Illinois	5,841	Ohio	2,545
Indiana	3,146	Oklahoma	128
Iowa	5,374	Pennsylvania	242
Kansas	1,800	S. Carolina	121
Kentucky	881	S. Dakota	2,329
Louisiana	574	Tennessee	715
Maryland	197	Texas	41
Michigan	983	Virginia	199
Minnesota	3,642	W. Virginia	12
Mississippi	965	Wisconsin	1,003
Missouri	2,606		

Source: USDA, NASS

## As Percentage of Total Principal Crops\*

State	Percent	State	Percent
Alabama	14.0	Nebraska	30.4
Arkansas	40.3	New Jersey	29.0
Delaware	32.3	New York	13.0
Florida	0.8	N. Carolina	22.4
Georgia	3.9	N. Dakota	29.4
Illinois	41.6	Ohio	51.1
Indiana	45.7	Oklahoma	8.0
Iowa	36.2	Pennsylvania	12.0
Kansas	26.3	S. Carolina	20.4
Kentucky	31.4	S. Dakota	37.9
Louisiana	32.3	Tennessee	34.3
Maryland	32.0	Texas	0.6
Michigan	31.3	Virginia	19.6
Minnesota	35.2	W. Virginia	7.6
Mississippi	43.0	Wisconsin	27.8
Missouri	46.3		

Source: USDA, NASS

\*Includes field and miscellaneous crops.

# U.S. Soybean Production Costs & Returns 2016

Category	\$/Planted Acre	\$/Planted Hectare
<b>Gross value of production</b>		
Soybeans	490.80	1,212.76
<b>Total, gross value of production</b>	<b>490.80</b>	<b>1,212.76</b>

## Operating Costs:

Seed	61.02	150.78
Fertilizer*	33.62	83.08
Chemicals	27.69	68.42
Custom operations	10.79	26.66
Fuel, lube, and electricity	13.89	34.32
Repairs	22.42	55.40
Purchased irrigation water	0.06	0.15
Interest on operating capital	0.25	0.62
<b>Total, operating costs</b>	<b>169.74</b>	<b>419.43</b>

## Allocated overhead:

Hired Labor	3.34	8.25
Opportunity cost of unpaid labor	19.27	47.62
Capital recovery of machinery and equipment	90.19	222.86
Opportunity cost of land (rental rate)	161.45	398.94
Taxes and insurance	10.92	26.98
General farm overhead	17.57	43.42
<b>Total, allocated overhead</b>	<b>302.74</b>	<b>748.07</b>

<b>Total cost listed</b>	<b>472.48</b>	<b>1,167.50</b>
Value of production less total costs listed	18.32	45.26
Value of production less operating costs	321.06	793.33

## Supporting information:

Yield (bushels per planted acre)(mt/ha)	51.7	3.47
Price (\$ per bushel at harvest)(\$/mt)	9.50	349
Enterprise size (planted acres)(ha)**	273	110
Production practices:**		
Irrigated (percent)	10	10
Dryland (percent)	90	90

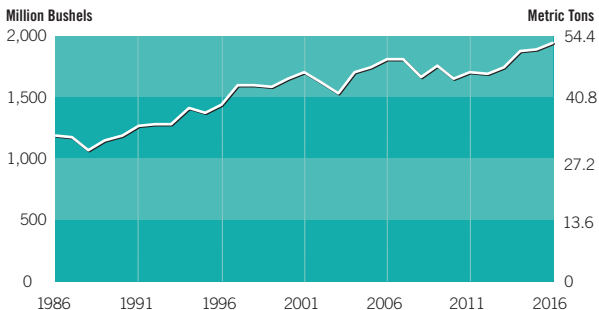
\* Commercial fertilizer, soil conditioners and manure

\*\* Developed from survey base year, 2012

Sources: USDA, ERS, Industry Estimates



# U.S. Soybean **Crush** 1987-2016

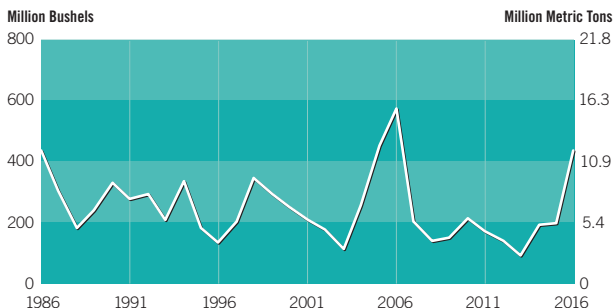


Year	Million Bushels	Metric Tons
1987	1,174	32.0
1988	1,058	28.8
1989	1,146	31.2
1990	1,187	32.3
1991	1,254	34.1
1992	1,279	34.8
1993	1,276	34.7
1994	1,405	38.2
1995	1,370	37.3
1996	1,436	39.1
1997	1,597	43.5
1998	1,590	43.3
1999	1,579	43.0
2000	1,641	44.7
2001	1,700	46.3

Year	Million Bushels	Metric Tons
2002	1,615	44.0
2003	1,530	41.6
2004	1,696	46.2
2005	1,739	47.3
2006	1,808	49.2
2007	1,803	49.1
2008	1,662	45.2
2009	1,752	47.7
2010	1,648	44.9
2011	1,703	46.3
2012	1,689	46.0
2013	1,734	47.2
2014	1,873	51.0
2015	1,886	51.3
2016	1,940	52.8

Source: USDA, WAOB

# U.S. Soybean Ending Stocks 1987-2016

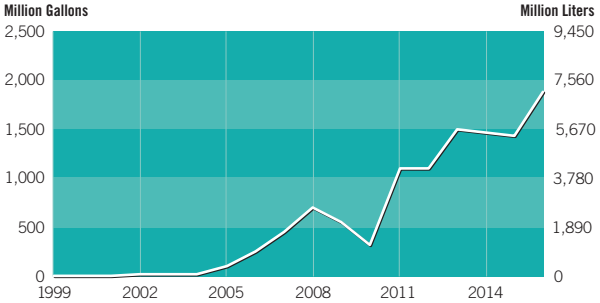


Year	Million Bushels	Million Metric Tons
1987	302	8.2
1988	182	5.0
1989	239	6.5
1990	329	9.0
1991	278	7.6
1992	292	7.9
1993	209	5.7
1994	335	9.1
1995	183	5.0
1996	132	3.6
1997	200	5.4
1998	348	9.5
1999	290	7.9
2000	248	6.7
2001	208	5.7

Year	Million Bushels	Million Metric Tons
2002	178	4.8
2003	112	3.0
2004	256	7.0
2005	449	12.2
2006	574	15.6
2007	205	5.6
2008	138	3.8
2009	151	4.1
2010	215	5.9
2011	169	4.6
2012	141	3.8
2013	92	2.5
2014	191	5.2
2015	197	5.4
2016	435	11.8

Source: USDA, WAOB

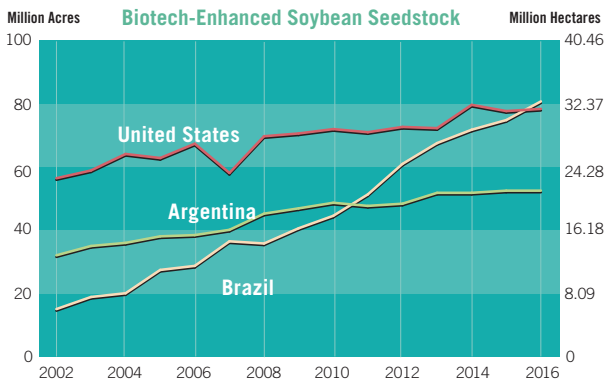
# U.S. Biodiesel Production 1999-2016



Year	Million Gallons	Million Liters
1999	0.5	1.9
2000	2.0	7.6
2001	5.0	18.9
2002	15.0	56.7
2003	20.0	75.6
2004	25.0	94.5
2005	112.0	423.0
2006	250.0	945.0
2007	450.0	1701.0
2008	700.0	2646.0
2009	545.0	2060.0
2010	315.0	1191.0
2011	1100.0	4158.0
2012	1100.0	4158.0
2013	1495.0	5651.0
2014	1466.0	5541.0
2015	1423.0	5379.0
2016	1874.0	7084.0

1 bushel of soybeans produces 1.5 gallons of biodiesel and 48 pounds of protein-rich meal. Source: National Biodiesel Board

# Adoption of Biotech-Enhanced Seedstock 2002-2016 MAJOR EXPORTING COUNTRIES ONLY



UNITED STATES					
Year	Total Soy Acres (Millions)	Total Soy Hectares (Millions)	Biotech Acres (Millions)	Biotech Hectares (Millions)	Pct Biotech
2002	72.8	29.5	56.1	22.7	77
2003	72.3	29.3	58.6	23.7	81
2004	75.2	30.4	63.9	25.8	85
2005	72.0	29.1	62.6	25.3	87
2006	75.5	30.6	67.2	27.2	89
2007	63.6	25.7	57.8	23.4	91
2008	75.7	30.6	69.6	28.2	92
2009	77.5	31.4	70.5	28.6	91
2010	77.4	31.3	71.9	29.1	93
2011	75.4	30.5	70.9	28.7	94
2012	77.2	31.2	72.6	29.3	94
2013	77.6	31.4	72.2	29.2	93
2014	84.8	34.3	79.7	32.2	94
2015	82.7	33.5	77.7	31.5	94
2016	83.4	33.8	78.4	31.7	94

ARGENTINA					
Year	Total Soy Acres (Millions)	Total Soy Hectares (Millions)	Biotech Acres (Millions)	Biotech Hectares (Millions)	Pct Biotech
2002	31.6	12.8	31.3	12.7	99
2003	34.6	14.0	34.3	13.9	99
2004	35.6	14.4	35.3	14.3	99
2005	37.6	15.2	37.4	15.1	100
2006	38.0	15.4	37.8	15.3	100
2007	41.5	16.8	39.5	16.0	95
2008	44.9	18.2	44.7	18.1	99
2009	46.9	19.0	46.4	18.8	99
2010	48.2	19.5	48.2	19.5	100
2011	47.2	19.1	47.2	19.1	100
2012#	47.9	19.4*	47.9	19.4	100
2013	51.4	20.8	51.4	20.8	100
2014	51.4	20.8	51.4	20.8	100
2015	52.1	21.1	52.1	21.1	100
2016	52.1	21.1	52.1	21.1	100

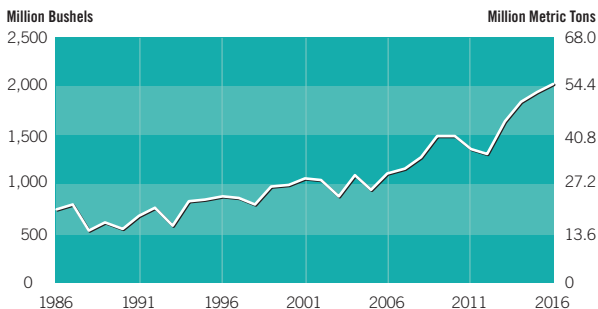
# Argentinian Agriculture Ministry Estimate Source: ISAAA

BRAZIL					
Year	Total Soy Acres (Millions)	Total Soy Hectares (Millions)	Biotech Acres (Millions)	Biotech Hectares (Millions)	Pct Biotech
2002	43.8	17.7	14.0	5.7	32
2003	52.6	21.3	17.9	7.2	34
2004	56.3	22.8	19.1	7.7	34
2005	54.3	22.0	26.6	10.8	49
2006	49.9	20.2	27.9	11.3	56
2007	54.4	22.0	35.8	14.5	66
2008	54.1	21.9	35.1	14.2	65
2009	56.6	22.9	40.0	16.2	71
2010	62.7	25.4	44.0	17.8	75
2011	61.8	25.0	50.9	20.7	83
2012*	68.2	27.6	60.7	24.6	89
2013	72.9	29.5	67.4	27.3	92
2014	77.1	31.2	71.7	29.0	93
2015	79.5	32.2	74.8	30.3	94
2016	83.7	33.9	80.8	32.7	97

\* CONAB Estimate

Source: ISAAA

# U.S. Soybean Exports 1987-2016

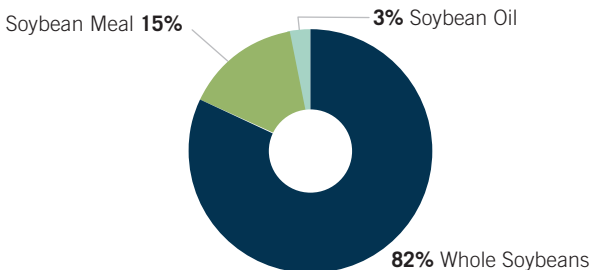


Year	Million Bushels	Million Metric Tons
1987	802	21.8
1988	527	14.3
1989	623	17.0
1990	557	15.2
1991	684	18.6
1992	770	21.0
1993	589	16.0
1994	838	22.8
1995	851	23.2
1996	882	24.0
1997	872	23.7
1998	805	21.9
1999	975	26.5
2000	996	27.1
2001	1,063	28.9

Year	Million Bushels	Million Metric Tons
2002	1,045	28.4
2003	880	23.9
2004	1,097	29.9
2005	940	25.6
2006	1,116	30.4
2007	1,159	31.5
2008	1,279	34.8
2009	1,499	40.8
2010	1,501	40.9
2011	1,365	37.1
2012	1,317	35.8
2013	1,638	44.6
2014	1,842	50.1
2015	1,936	52.7
2016	2,025	55.1

Source: USDA, WAOB

# U.S. Soybean & Soy Product Exports 2016



## WHOLE SOYBEAN EXPORTS

Customer	Value (Millions)	Customer	Value (Millions)
China	\$14,204	Germany	\$437
Mexico	\$1,462	Thailand	\$364
Japan	\$1,001	Spain	\$353
Indonesia	\$993	Vietnam	\$348
Netherlands	\$786	All Others	\$2,333
Taiwan	\$586		

## SOYBEAN MEAL EXPORTS

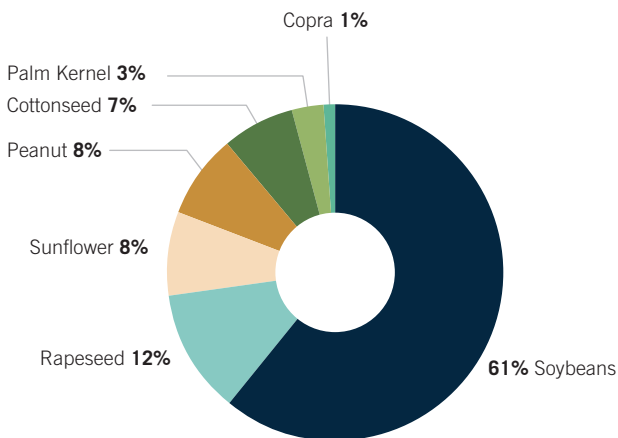
Customer	Value (Millions)	Customer	Value (Millions)
Mexico	\$807	Guatemala	\$135
Philippines	\$729	Venezuela	\$132
Canada	\$284	Ecuador	\$123
Colombia	\$259	Peru	\$108
Dominican Republic	\$224	All Others	\$1,130
Thailand	\$155		

## SOYBEAN OIL EXPORTS

Customer	Value (Millions)	Customer	Value (Millions)
Mexico	\$227	Guatemala	\$33
China	\$104	Peru	\$32
Dominican Republic	\$84	Jamaica	\$24
South Korea	\$67	Canada	\$18
Colombia	\$62	All Others	\$138
Venezuela	\$41		

Source: USDA, FAS

# World Oilseed Production 2016

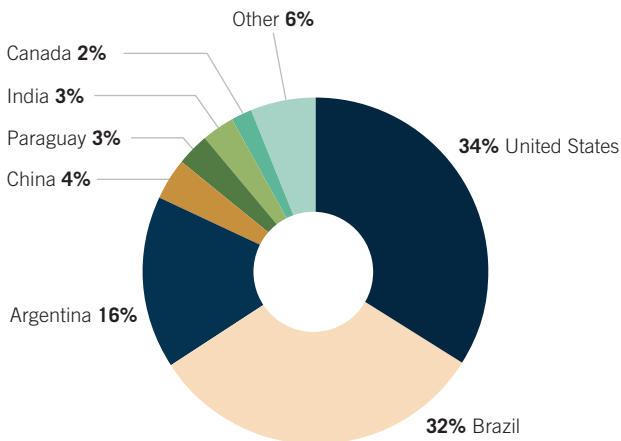


Oilseed	Million Short Tons	Million Metric Tons
<b>Soybean</b>	<b>375.7</b>	<b>340.8</b>
<b>Rapeseed</b>	75.4	68.4
<b>Sunflower</b>	49.6	45.0
<b>Peanut</b>	46.6	42.3
<b>Cottonseed</b>	42.9	38.9
<b>Palm Kernel</b>	18.8	17.1
<b>Copra</b>	6.1	5.5
<b>TOTAL</b>	<b>615.1</b>	<b>558.0</b>

Source: USDA, FAS



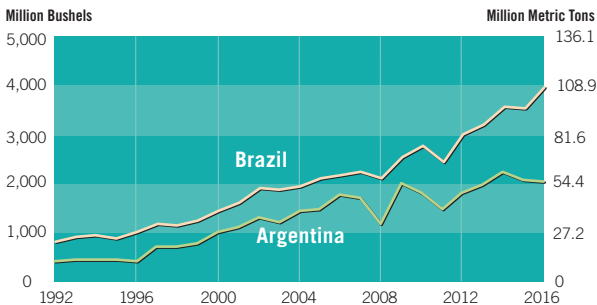
# World Soybean Production 2016



Country	Million Bushels	Million Metric Tons
<b>United States</b>	<b>4,306</b>	<b>117.2</b>
<b>Brazil</b>	3,968	108.0
<b>Argentina</b>	2,039	55.5
<b>China</b>	474	12.9
<b>India</b>	423	11.5
<b>Paraguay</b>	338	9.2
<b>Canada</b>	237	6.5
<b>Other</b>	739	20.1
<b>Total</b>	<b>12,522</b>	<b>340.8</b>

Source: USDA, FAS

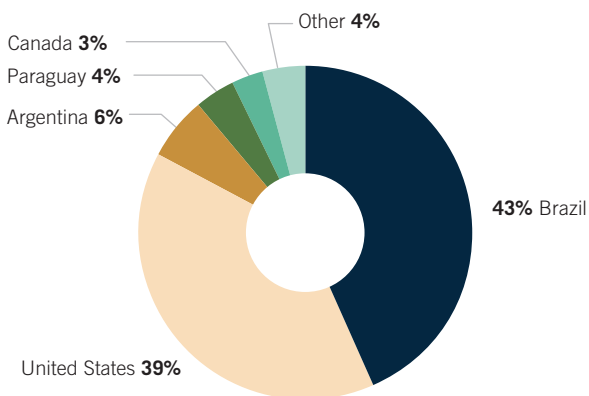
# Brazil & Argentina Soybean Production 1993-2016



BRAZIL		
Year	Million Bushels	Million Metric Tons
1993	907	24.7
1994	952	25.9
1995	887	24.2
1996	1,003	27.3
1997	1,194	32.5
1998	1,150	31.3
1999	1,257	34.2
2000	1,433	39.0
2001	1,598	43.5
2002	1,911	52.0
2003	1,874	51.0
2004	1,947	53.0
2005	2,094	57.0
2006	2,168	59.0
2007	2,241	61.0
2008	2,124	57.8
2009	2,535	69.0
2010	2,767	75.3
2011	2,443	66.5
2012	3,013	82.0
2013	3,186	86.7
2014	3,571	97.2
2015	3,546	96.5
2016	3,968	108.0

ARGENTINA		
Year	Million Bushels	Million Metric Tons
1993	456	12.4
1994	459	12.5
1995	457	12.4
1996	412	11.2
1997	716	19.5
1998	735	20.0
1999	779	21.2
2000	1,021	27.8
2001	1,102	30.0
2002	1,304	35.5
2003	1,213	33.0
2004	1,433	39.0
2005	1,488	40.5
2006	1,793	48.8
2007	1,698	46.2
2008	1,176	32.0
2009	2,003	54.5
2010	1,800	49.0
2011	1,473	40.1
2012	1,811	49.3
2013	1,962	53.4
2014	2,256	61.4
2015	2,087	56.8
2016	2,039	55.5

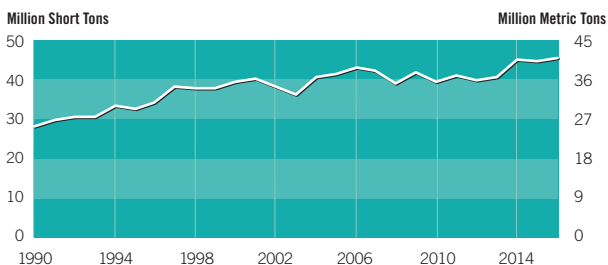
# World Soybean Exports 2016



Country	Million Bushels	Million Metric Tons
<b>Brazil</b>	<b>2,241</b>	<b>61.0</b>
<b>United States</b>	2,025	55.1
<b>Argentina</b>	331	9.0
<b>Paraguay</b>	198	5.4
<b>Canada</b>	162	4.4
<b>Other</b>	228	6.2
<b>Total</b>	<b>5,184</b>	<b>141.1</b>

Source: USDA, FAS

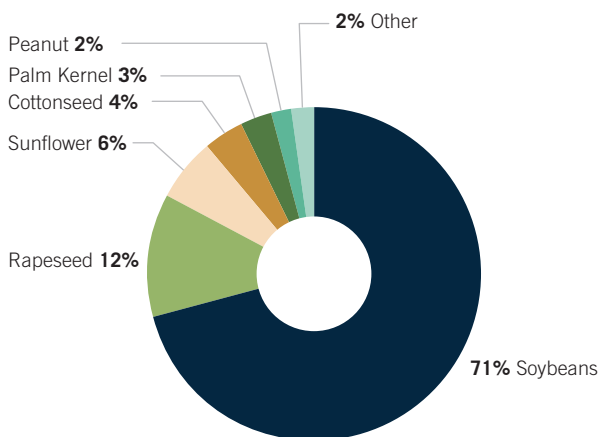
# U.S. Soybean Meal Production 1990-2016



Year	Million Short Tons/ Average Price	Million Metric Tons/ Average Price
1990	28.3/\$181	25.7/\$200
1991	29.8/\$189	27.0/\$209
1992	30.4/\$194	27.6/\$214
1993	30.5/\$193	27.7/\$213
1994	33.3/\$163	30.2/\$179
1995	32.5/\$236	29.5/\$260
1996	34.2/\$262	31.0/\$289
1997	38.2/\$185	34.7/\$204
1998	37.8/\$139	34.3/\$153
1999	37.6/\$168	34.1/\$185
2000	39.4/\$174	35.7/\$191
2001	40.3/\$168	36.6/\$185
2002	38.2/\$182	34.6/\$201
2003	36.3/\$256	32.9/\$282
2004	40.7/\$183	33.0/\$202
2005	41.2/\$174	37.4/\$192
2006	43.0/\$205	39.0/\$226
2007	42.3/\$336	38.4/\$370
2008	39.1/\$331	35.5/\$365
2009	41.7/\$311	37.8/\$343
2010	39.3/\$346	35.7/\$381
2011	41.0/\$394	37.2/\$434
2012	39.9/\$468	36.2/\$516
2013	40.7/\$490	36.9/\$540
2014	45.1/\$368	40.9/\$406
2015	44.7/\$325	40.6/\$358
2016	45.6/\$325	41.4/\$358

Source: USDA, WAOB

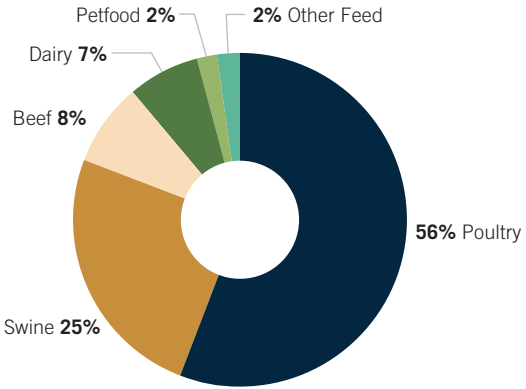
# World Protein Meal Consumption 2016



Source	Million Short Tons	Million Metric Tons
<b>Soybeans</b>	<b>248.1</b>	<b>225.1</b>
<b>Rapeseed</b>	42.0	38.1
<b>Sunflower</b>	19.5	17.7
<b>Cottonseed</b>	14.9	13.5
<b>Palm Kernel</b>	9.6	8.8
<b>Peanut</b>	7.8	7.1
<b>Other</b>	7.0	6.4
<b>TOTAL</b>	<b>349.0</b>	<b>316.6</b>

Source: USDA

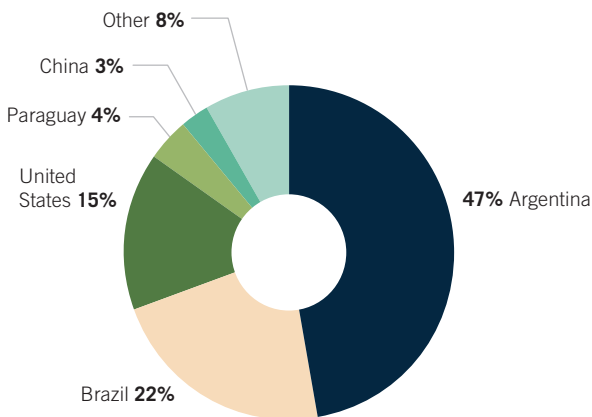
# U.S. Soybean Meal Use by Livestock 2016



Use	Million Short Tons	Million Metric Tons
<b>Poultry</b>	<b>19.1</b>	<b>17.4</b>
<b>Swine</b>	8.5	7.7
<b>Beef</b>	2.7	2.4
<b>Dairy</b>	2.5	2.3
<b>Petfood</b>	0.8	0.7
<b>Other Feed</b>	0.8	0.7
<b>TOTAL</b>	<b>34.3</b>	<b>31.1</b>

Source: Based on industry estimates, USB 2008 soybean meal market study, USDA, (NASS).

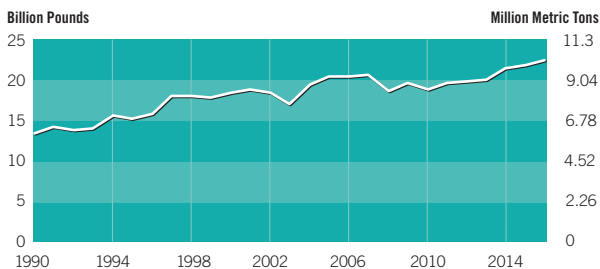
# World Soybean Meal Exports 2016



Country	Million Short Tons	Million Metric Tons
<b>Argentina</b>	<b>35.7</b>	<b>32.4</b>
<b>Brazil</b>	16.8	15.2
<b>United States</b>	11.6	10.5
<b>Paraguay</b>	3.0	2.7
<b>China</b>	2.0	1.9
<b>Other</b>	6.2	5.6
<b>TOTAL</b>	<b>75.3</b>	<b>68.3</b>

Source: USDA, FAS

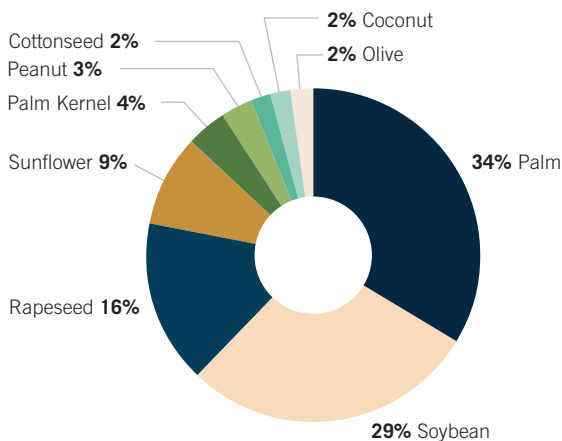
# U.S. Soybean Oil Production 1990-2016



Year	Billion Pounds/ Average Price	Million Metric Tons/ Average Price
1990	13.4/\$.210	6.1/\$463
1991	14.3/\$.191	6.5/\$421
1992	13.8/\$.214	6.2/\$472
1993	14.0/\$.270	6.3/\$595
1994	15.6/\$.275	7.1/\$606
1995	15.2/\$.247	6.9/\$545
1996	15.8/\$.225	7.2/\$496
1997	18.1/\$.258	8.2/\$569
1998	18.1/\$.199	8.2/\$439
1999	17.8/\$.156	8.1/\$344
2000	18.4/\$.142	8.4/\$312
2001	18.9/\$.165	8.6/\$364
2002	18.4/\$.220	8.3/\$485
2003	17.1/\$.300	7.8/\$661
2004	19.4/\$.230	8.8/\$507
2005	20.4/\$.234	9.2/\$516
2006	20.5/\$.310	9.3/\$684
2007	20.6/\$.520	9.3/\$1,147
2008	18.7/\$.322	8.5/\$709
2009	19.6/\$.360	8.9/\$793
2010	18.9/\$.532	8.6/\$1,173
2011	19.7/\$.519	8.9/\$1,144
2012	19.8/\$.471	9.0/\$1,038
2013	20.1/\$.382	9.1/\$842
2014	21.4/\$.316	9.7/\$697
2015	22.0/\$.299	10.0/\$659
2016	22.6/\$.335	10.2/\$739



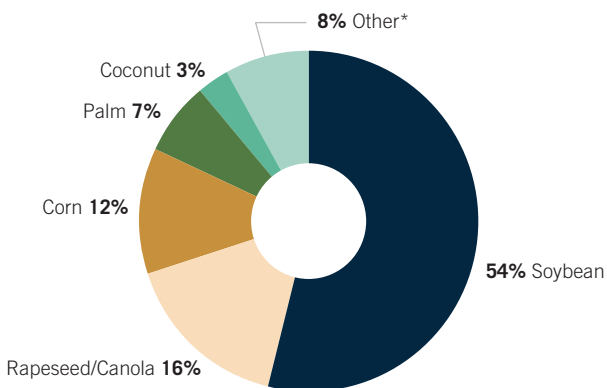
# World Vegetable Oil Consumption 2016



Feedstock	Million Short Tons	Million Metric Tons
<b>Palm</b>	<b>68.9</b>	<b>62.6</b>
<b>Soybean</b>	59.4	53.9
<b>Rapeseed</b>	31.5	28.6
<b>Sunflower</b>	17.3	15.7
<b>Palm Kernel</b>	7.9	7.2
<b>Peanut</b>	6.3	5.7
<b>Cottonseed</b>	4.9	4.4
<b>Coconut</b>	3.6	3.3
<b>Olive</b>	3.2	2.9
<b>TOTAL</b>	<b>203.0</b>	<b>184.2</b>

Source: USDA, FAS

# U.S. Vegetable Oil Consumption 2016



Feedstock	Million Pounds	Million Metric Tons
<b>Soybean</b>	<b>20,550</b>	<b>9.3</b>
<b>Rapeseed/Canola</b>	6,019	2.7
<b>Corn</b>	4,555	2.1
<b>Palm</b>	2,708	1.2
<b>Coconut</b>	1,131	0.5
<b>Other*</b>	2,854	1.3
<b>TOTAL</b>	<b>37,817</b>	<b>17.2</b>

\*Other includes palm kernel, peanut, sunflower, safflower and others.

Source: ERS, USDA

## MESSAGE FROM **AMERICAN SOYBEAN ASSOCIATION**

The American Soybean Association (ASA) represents all U.S. soybean farmers on domestic and international policy issues important to the soybean industry. ASA has 26 affiliated state associations representing 30 soybean producing states and more than 300,000 soybean farmers.

In support of ASA's mission to advocate for U.S. soy farmers on policy and trade, ASA invests cost-share funding provided by the U.S. Department of Agriculture's Foreign Agricultural Service in the U.S. Soybean Export Council to operate global offices and conduct activities to maximize the use of U.S. soy internationally.

Visit **SoyGrowers.com** or contact the American Soybean Association at 800.688.7692.

## MESSAGE FROM **UNITED SOYBEAN BOARD**

The United Soybean Board builds preference for U.S. soy and profit opportunities for U.S. soybean farmers. We compete in the global marketplace through the U.S. Soy Advantage, anchored by superior composition and consistent supply of our soy, as well as the sustainability practices of U.S. soybean farmers. The U.S. soy industry is committed to continuous improvement and innovation to meet end-user needs today and into the future.

To learn more, visit **UnitedSoybean.org**.

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## GOLD LEVEL

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Illinois Soybean Association  
Indiana Soybean Alliance  
Iowa Soybean Association  
South Dakota Soybean Research & Promotion Council

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Kentucky Soybean Board  
Minnesota Soybean Research & Promotion Council  
Missouri Soybean Merchandising Council  
Ohio Soybean Council

## BRONZE LEVEL

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Kansas Soybean Commission  
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North Carolina Soybean Producers Association  
North Dakota Soybean Council  
South Carolina Soybean Board  
Tennessee Soybean Promotion Council  
Virginia Soybean Board

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Maryland Soybean Board

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Soybean Association

