



ICAR- Indian Institute of Soybean Research

SOYBEAN MONITOR/ MARKET WATCH

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Soybean sowing progress and crop condition

In India, soybean is predominantly grown as a rainfed crop covering the states of Madhya Pradesh, Maharashtra and Rajasthan; on vertisols and associated soils. Extreme variation in rainfall both in time and space acts as a major impediment in successful cultivation of soybean and realizing higher productivity coupled with level of technology adoption and other factors. This is true in this year, wherein the sowing of soybean in the country during *kharif* 2017 is slightly lagging behind as compared to the previous year. The crop has been sown on 105.76 lakh ha area (Table 1) in the country as on 14.09.2017 (about 7.81% less area than previous year same period). The decline in area under soybean this *kharif* season was observed in all the major soybean growing states, due to erratic rainfall during sowing and lower price realisation from last *kharif* harvest discouraged farmers. In Madhya Pradesh, the soybean area is diverted to other crops such as urad, moong, maize, etc.

Table 1. Sowing position of soybean in India as on 14.09.2017 (Area in Lakh Ha)

States	2017	Same period 2016	% Change over 2016
Chhattisgarh	1.320	1.340	-1.49
Gujarat	1.290	1.380	-6.52
Karnataka	2.710	3.240	-16.36
Madhya Pradesh	50.100	54.010	-7.24
Maharashtra	38.237	39.714	-3.72
Rajasthan	9.690	10.902	-11.12
Telangana	1.650	2.980	-44.63
Uttar Pradesh	0.195	0.360	-45.83
Uttarakhand	0.220	0.280	-21.43
Others	0.348	0.510	-31.76
Total	105.760	114.716	-7.81

Source: MOA&FW, GOI.

Aberrant rainfall pattern and intermittent dry spells were observed in almost all major soybean growing states this season, which delayed sowing/ re-sowing of soybean that continue from 2nd week of June to mid-July. There were also reports of sporadic biotic stresses in some soybean growing areas. About 34 districts in Madhya Pradesh, 14 districts in Maharashtra and 14 districts in Rajasthan states received deficient rainfall from June to mid- September period. Rainfall was deficient in major soybean growing regions during 28, 32-34 and 36-37 standard meteorological weeks (during 30-33 SMW in Marathwada and Vidharbha), coinciding with the pod formation and grain filling stage of the crop.

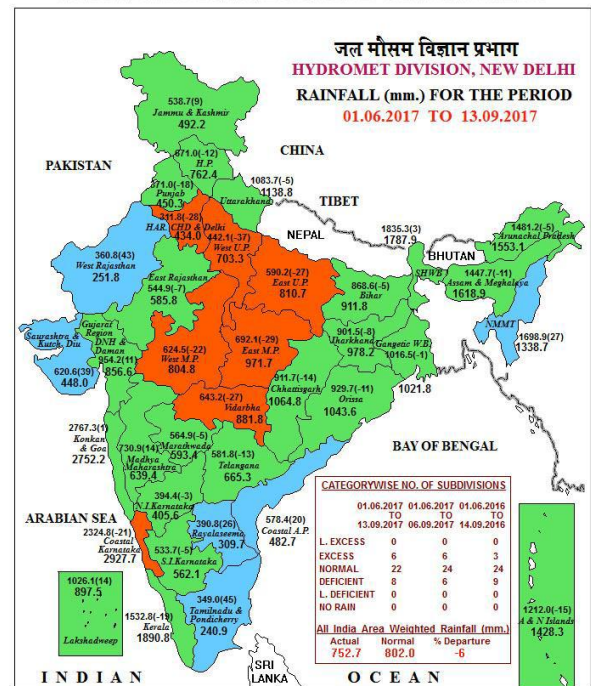
Therefore, the crop productivity and production is expected to decline marginally this year as compared to previous year. Early varieties and crop sown during second week of June is at harvest but the higher rainfall during mid-September in some districts in Madhya Pradesh is a major concern in terms of productivity and quality of production. The weather aberrations from 2013 onwards led to high fluctuation in crop productivity, therefore, a robust weather linked crop insurance and claim settlement mechanism should be in place.

Production of soybean in India

Estimated production of soybean during *kharif* 2016 is 13.79 million tones from an area of 11.39 million hectares with the productivity of over 1.2 t/ha (Figure 1). Even after the low productivity and production during *kharif* 2015 due to drought, area under soybean had not declined much in *kharif* 2016. In *kharif* 2013 excessive rainfall and in *kharif* 2014 late arrival of monsoon and drought conditions were the main reasons for low productivity of soybean in India. In *kharif* 2015, the worst year for the soybean production and productivity due to very unusual weather conditions coupled with biotic stresses. Madhya Pradesh, Maharashtra and Rajasthan together contribute to about 92-93% of area and production of soybean in India. In recent years, cultivation of soybean is fast expanding in the states of Telangana, Karnataka and Gujarat.

The growth in area and production of soybean since 1970-71 in India has been unparalleled. Acreage under soybean has increased at an annual compound growth rate of 13.3% for the period from 1970-71 to 2016-17 and 4.5% from 2000-01. Production of soybean in India increased at an annual growth rate of 14.8% for 1970-71 to 2016-17 and 5.5% for 2000-01 to 2016-17. The production growth of soybean has been mainly area led, although, the

भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
 ■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

NOTES:
 [a] Rainfall figures are based on operational data.
 [b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
 Percentage Departures of Rainfall are shown in Brackets.

productivity has almost trebled from 426 kg/ha during 1970-71 to 1353 kg/ha during the year 2012-13.

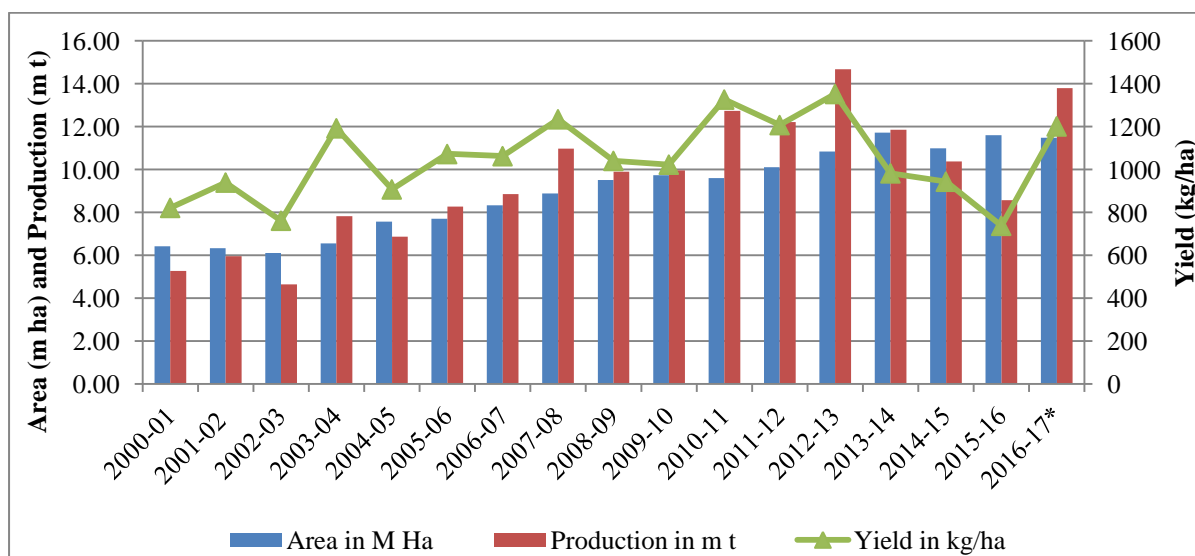


Figure 1. Area, production and yield of soybean in India

International soybean scenario

Globally, area under soybean cultivation is around 121 million hectares and five major producing countries (USA, Brazil, Argentina, India and China) account for more than 85% of global soybean area and 88.5% of production. The record production of soybean was estimated during 2016-17 at 349 million tonnes, and projected to decline marginally to 347.6 m t in the current year (Table 2). The highest ever global opening stock of soybean is projected this year leading to record global supply. Although, higher domestic utilisation and exports of soybean is expected but the closing stock is projected to be more than 52 million tonnes. Higher global production of soybean and closing stock is expected to put downward pressure on international prices.

Export of soybean products from India

On account of low domestic production coupled with higher global production led to the slump in international prices and higher domestic demand, export of soybean de-oiled cake (DOC) from India declined drastically during 2014-15 and 2015-16. But with the jump in soybean production in India during 2016-17, the export of DOC has picked up and reached to 12.76 lakh tonnes during 2016-17 (Figure 2) valued at Rs. 3731.69 Crores (US\$ 554.89 million) as compared to 4.13 lakh tonnes valued at Rs. 1520.2 Crores (US\$ 233.34 million) in the year 2015-16. In the current financial year, the export of soybean meal was to the tune of 4.08 lakh tonnes (Table 4) during April-June 2017-18 valued at Rs. 1105.78 Crores (US\$ 171.51 million). The price parity of Indian soybean DOC with international prices is improving as higher production of soybean and import influx of cheap edible oils put pressure on domestic prices.

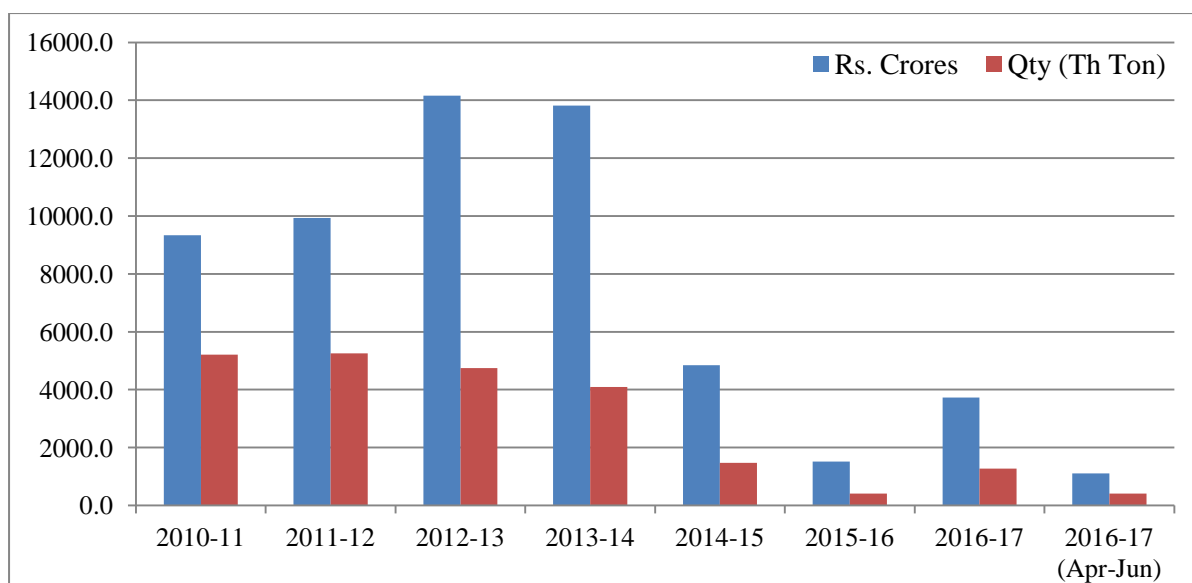


Figure 2. Export of soybean meal from India

Major export destinations of soybean meal from India are Bangladesh, Japan, France, Nepal Myanmar, Germany, Sri Lanka, USA, Vietnam, China, Kuwait, Thailand, Indonesia, Oman and Belgium. The other soybean based products exported from India includes soybean flour, soy sauce, soy milk, soy protein and soy crude and other oil (Table 4).

Import of soybean oil and other soy products in India

To fulfil the growing demand of edible oils, country is import dependent and the pace of domestic production of edible oils is not keeping pace with the increase in demand leading to continuously increasing imports. The country imported about 70 per cent of total edible oil consumption during 2016-17. Import of soybean oil is continuously increasing in India and reached to 39.64 lakh tonnes of soybean crude oil valued at Rs. 19419 Crores in the year 2015-16, mainly from Argentina, Brazil and Paraguay. The import of soybean crude oil has declined in 2016-17 to 34.64 lakh tonnes. In the current year, the country imported 9.76 lakh tonnes of soybean crude oil during April-June 2017-18 valued at 5002.73 Crores (Table 3).

Soybean price scenario

Soybean farmers were facing typical problem of prices ruling near MSP and even traded below MSP during *kharif* 2016 harvest period for the first time. Against the MSP of Rs. 2775/qt soybean prices traded in the range of Rs. 2400 to 3200/qt during 2016-17, particularly just after harvest.

Presently, Minimum Support Price of soybean declared at Rs. 3050/qt for *kharif* 2017 harvest. The soybean price scenario in the country is expected to continue to be subdued on account of high global production leading to pressure on international prices of soybean and products, unless the arrangements for assured procurement from farmers put in place. Since, MSP for this year is high, and the soybean is expected to trade around MSP or even likely to go below this level, arrangement for procurement will boost farmers' sentiment, their price realisation and income, in case of market prices trades below MSP.

Wholesale price index of soybean (2011-12=100) is continuously decreasing after reaching the peak of 188.5 during May, 2014 and dropped to around 120 at present. Similarly, WPI of soy feed preparations (soybean meal) peaked during May 2014 at 167.8 and started declining afterwards and reached to 140 at present.

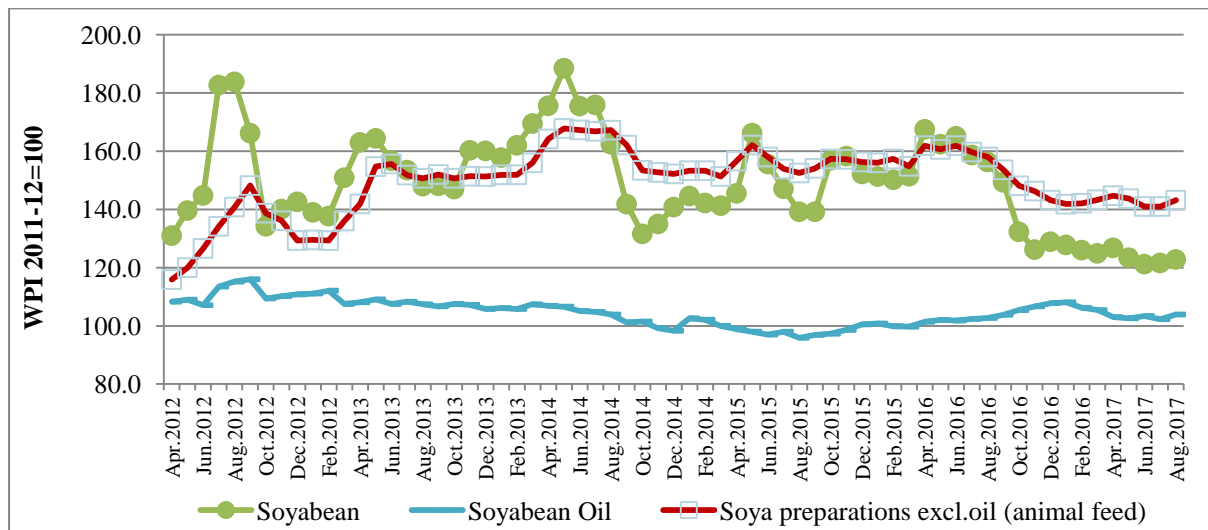


Fig. 3. Wholesale price index for soybean and products. (Data source: Office of Economic Advisor, Ministry of Commerce and Industry, GOI).

The declining trend in soybean prices has been observed since April, 2016. Soybean prices in the Indore market have decreased from nearly Rs. 4158/ qt during April, 2016 to Rs. 2960/qt. during July, 2017. Soybean prices were hovering in the range of Rs. 2500 to 3200/ qt in the current year. Steep decline in soybean meal prices was also observed since April, 2016, although marginally improved in the recent month. Soybean oil prices has shown improving trend till January, 2017 and then started decelerating on lower international prices.

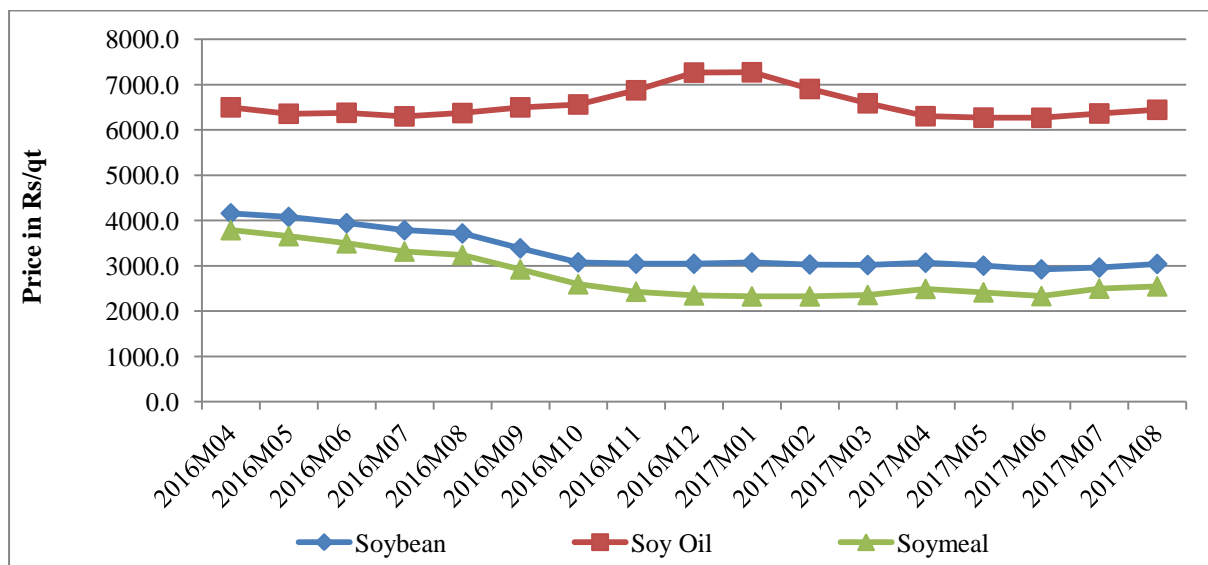


Fig. 4. Price movement of soybean and products at Indore market. (Data source: NCDEX)

Movement of international prices

International price of soybean and soybean meal are depressed from June 2016 on higher global production of soybean (Figure 5). International prices of soybean oil had peaked to 907 \$/mt during December, 2016 and decreased to 791 \$/mt during April, 2017. During recent months, international prices of soybean has started improving on the increasing global demand and expected decline in global production of the crop.

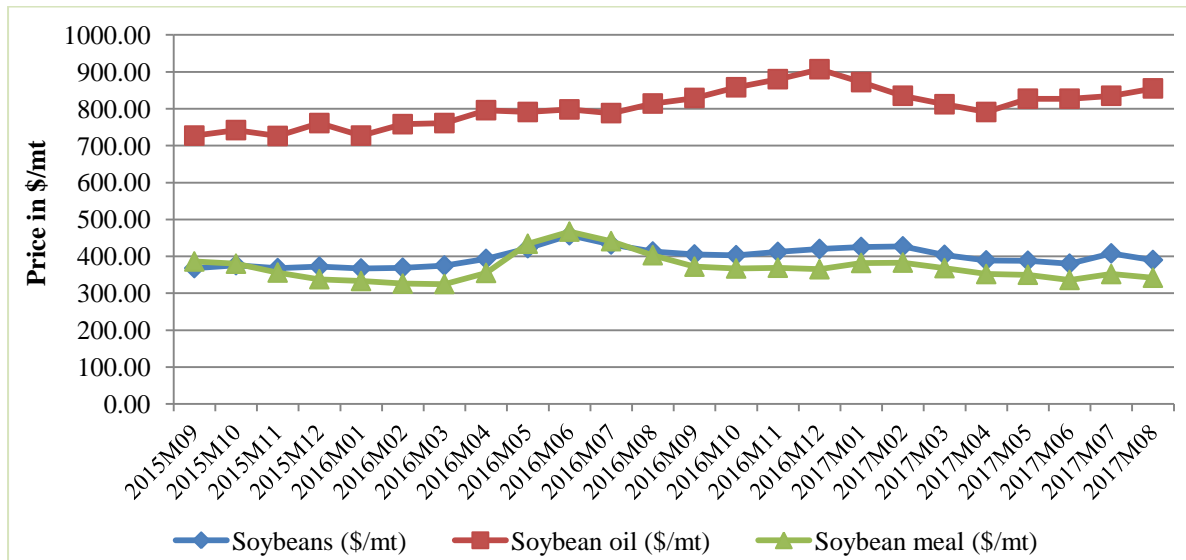


Fig. 5. International price movement of soybean and products. (Data source: World Bank Pink Sheet).

Table 2. Supply and distribution of soybean in major producing countries and the World.

Country	Year	Area (m ha)	Production (m t)	Opening Stock (m t)	Domestic supply (m t)	Imports (m t)	Total Supply (m t)	Dom. Utilization (m t)	Exports (m t)	Closing stock (m t)	Tot. Utilization (m t)
Argentina	2017/18	18.9	56.8	15.0	71.8	1.6	73.4	52.2	9.6	11.6	73.4
Argentina	2016/17	17.8	56.0	16.2	72.2	1.5	73.7	50.2	8.5	15.0	73.7
Argentina	2015/16	19.5	57.5	15.0	72.5	0.4	72.9	47.7	9.0	16.2	72.9
Argentina	2014/15	19.8	61.4	9.9	71.3	0.0	71.3	44.8	11.5	15.0	71.3
Brazil	2017/18	33.9	108.0	8.4	116.4	0.3	116.7	45.4	63.0	8.3	116.7
Brazil	2016/17	33.9	114.0	2.0	116.0	0.3	116.3	44.9	63.0	8.4	116.3
Brazil	2015/16	33.3	95.4	1.0	96.4	0.4	96.8	43.2	51.6	2.0	96.8
Brazil	2014/15	32.1	96.2	1.9	98.2	0.3	98.5	43.2	54.3	1.0	98.5
China Mainland	2017/18	7.9	14.4	13.9	28.3	94.0	122.3	108.8	0.1	13.4	122.3
China Mainland	2016/17	7.2	12.9	14.7	27.6	91.3	118.9	104.8	0.2	13.9	118.9
China Mainland	2015/16	6.5	11.6	16.2	27.8	83.2	111.0	96.2	0.2	14.7	111.0
China Mainland	2014/15	6.6	12.2	14.2	26.4	78.5	104.9	88.4	0.3	16.2	104.9
India	2017/18	10.6	8.9	0.9	9.8	0.1	9.9	9.5	0.1	0.3	9.9
India	2016/17	11.5	10.5	0.1	10.6	0.1	10.7	9.6	0.2	0.9	10.7
India	2015/16	11.6	7.1	0.7	7.8	0.1	7.9	7.8	0.0	0.1	7.9
India	2014/15	11.0	8.5	0.3	8.8	0.0	8.8	8.1	0.0	0.7	8.8
USA	2017/18	35.9	119.2	10.1	129.3	0.7	130.0	56.5	60.6	12.9	130.0
USA	2016/17	33.5	117.2	5.4	122.6	0.7	123.2	54.7	58.5	10.1	123.2
USA	2015/16	33.1	106.9	5.2	112.0	0.7	112.7	54.7	52.7	5.4	112.7
USA	2014/15	33.4	106.9	2.5	109.4	0.9	110.3	54.9	50.1	5.2	110.3
World	2017/18	125.4	347.6	54.4	402.0	149.8	551.7	347.4	151.5	52.8	551.7
World	2016/17	121.0	349.0	44.5	393.6	145.2	538.8	336.5	147.9	54.4	538.8
World	2015/16	121.5	314.6	44.0	358.6	135.0	493.6	320.1	129.0	44.5	493.6
World	2014/15	119.6	319.8	33.3	353.1	126.5	479.7	304.2	131.4	44.0	479.7

Source: AMIS, FAO website.

Table 3. Import of soybean and products in India (Quantity in tonnes and Value in Rs. Lakhs)

HS Code	Crop commodity	2013-14		2014-15		2015-16		2016-17		2017-18 (Apr- Jun)	
		Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
120110	Soybeans w/n broken of seed qlty	75	4.95	0	0	154	51.52	1645.44	452.59	7183.92	1863.77
120190	Other soybeans w/n broken	440.31	286.63	6311.56	2343.13	20557.7	8138.2	79729.65	27894.74	15169.30	5387.31
12081000	Flours and meals of soybeans	127.48	70.53	91.31	59.16	2.18	1.56	35.39	30.71	-	-
15071000	Soybean crude oil w/n degummed	1345133	830762.76	2317045	1290774.68	3964009.5	1941900.55	3464460.5	1870341.10	975995.19	500273.12
15079010	Soybean oil of edible grade	2.23	5.4	5.42	10.74	21.79	50.28	23.73	69.13	5.60	13.28
15079090	Soybean oil other than edible grade	27.01	39.66	128.48	307.61	1105.83	848.86	113.79	318.77	22.18	53.94
21031000	Soy sauce	185.29	328.71	144.92	239.61	234.08	282.44	694.13	679.94	158.43	131.39
22029010	Soy milk drinks w/n sweetnd or flavrd	419.11	264.81	437.71	297.42	256.63	290.9	235.03	244.58	-	-
23040010	Oil-cake & oil-cake meal of soybean expeller variety	80.86	136.48	21.1	60.14	33.19	65.34	2109.63	886.02	1400.52	418.11
23040020	Oil cake of soybean solvent extracted (defatted) variety	0	0	1.04	378.3	4237	1264.64	4628.00	1388.34	-	-
23040030	Meal of soybean solvent extracted (defatted) variety	155.8	65.16	0	0	135	35.64	3049.15	940.40	-	-
23040090	Other solid residues resulting from of extraction soybean oil	38.14	25.57	2.83	10.42	1836.64	540.39	24687.61	7095.73	0.20	6.65
35040091	Isolated soya protein	4455.76	9113.67	4498.49	10734.44	5768.97	13893.57	5585.00	12518.52	727.03	1469.69

Source: DGCI&S, Kolkata

Table 4. Export of soybean and products from India (Quantity in tonnes and Value in Rs. Lakhs)

HS Code	Crop commodity	2013-14		2014-15		2015-16		2016-17		2017-18 (Apr- Jun)	
		Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
120110	Soybeans w/n broken of seed qlty	9787.38	4985.99	4382.25	1998.50	812.87	379.23	2501.05	1064.12	158.50	58.26
120190	Other soybeans w/n broken	152735.48	69485.09	219491.30	97267.21	185046.94	82427.05	180797.11	74821.58	61765.14	22722.92
12081000	Flours and meals of soybeans	144229.25	61772.80	162762.17	71936.50	88186.77	38089.54	91243.82	36917.28	28520.31	9215.30
15071000	Soybean crude oil w/n degummed	6.00	10.79	28.13	21.13	40.37	33.09	36.46	22.25	-	-
15079010	Soybean oil of edible grade	284.58	270.06	307.10	261.91	1382.17	1060.09	175.40	152.50	1.03	1.36
15079090	Soybean oil other than edible grade	166.02	246.29	127.79	152.77	1210.89	817.58	208.08	285.07	7.10	14.52
21031000	Soy sauce	534.71	377.76	595.97	320.82	683.01	424.30	977.10	583.31	240.50	120.22
22029010	Soy milk drinks w/n sweetnd or flavrd	239.08	189.46	51.04	50.46	3.92	13.30	77.31	378.48	-	-
23040010	Oil-cake & oil-cake meal of soybean expeller variety	168197.34	57491.68	94747.28	33403.00	56618.32	23238.58	144011.08	54595.19	49769.2	17044.09
23040020	Oil cake of soybean solvent extracted (defatted) variety	119370.38	39176.50	44482.65	15201.08	6371.00	2105.30	55308.29	15875.56	22002.12	5317.83
23040030	Meal of soybean solvent extracted (defatted) variety	3553931.0	1207395.5	1125829.5	367499.7	285268.4	103482.2	833058.4	232734.8	289374.7	76211.3
23040090	Other solid residues resulting from of extraction soybean oil	249684.7	78057.1	202639.9	68832.9	64729.4	23194.2	243799.8	69963.6	46909.9	12000.6
35040091	Isolated soya protein	20.79	49.17	10.34	33.11	44.15	82.03	111.91	107.24	170.91	83.08

Source: DGCI&S, Kolkata