

8 September 2009

Soybean Seasonal Report



Price Action

Soybean futures prices have been falling from 2800 levels since April 2009 following emergence of selling pressure with the ease in demand for soy meal from South East Asian countries. Most of the South East Asian countries stayed away from active buying of soy meal due to higher price, which continued to rule above \$400 per tonne. Moreover, import of edible oils in large quantities since beginning of January resulted into excess supplies in the market thereby resulted into fall in the prices. The spot prices have fall from around Rs2800 per quintal level to Rs2000 per quintal in a span of 3 months. The commencement of new sowing season from June added further bearish sentiment to the market. Market participants were optimistic about sowing of soybean as they were expecting higher acreage compared to last year following early onset of monsoon. Though the onset of monsoon was 1 week prior to the normal date, its progress was not satisfactory till third week of June, which raised the concerns of drought situation in the country. But, monsoon revived from last of June and brought sufficient rainfall for central India. Overall, soybean market witnessed a downward trend since beginning of kharif season.

Introduction

Soybean, the “GOLDEN BEAN” of 21st century is a legume crop, is widely used as an oilseed. It is the single largest oilseed grown in the world and grows in varied agro-climatic conditions. It has emerged as one of the important commercial crop in many countries. Due to its world wide popularity, the international trade of Soybean is spread globally. Several countries such as Japan, China, Indonesia, Philippines and European countries are importing Soybean to supplement their domestic requirement for human consumption and cattle feed. The widely traded forms of soybeans are Mature Soybeans, Soy Oil and Soy Meal.

Soybean has a great potential as an exceptionally nutritive and very rich protein food. It can supply the much needed protein to human diets, because it contains above 40 per cent protein of superior quality and all the essential amino acids particularly glycine, tryptophan and lysine, similar to cow's milk and animal proteins. Soybean also contains about 20 per cent oil with an important fatty acid, lecithin and Vitamin A and D. The 4 percent mineral salts of Soybeans are fairly rich in phosphorous and calcium.

The Soybean is gaining popularity in recent years on account of its following unique characteristics:

- Adaptability to varied agro-climatic conditions.
- Unmatched composition of 40 percent protein and 20 percent oil.
- Nutritional superiority on account of protein containing essential amino acids, unsaturated fatty acids, carbohydrates, vitamins and minerals.
- Significant role in preventing and treating chronic diseases such as heart ailments, osteoporosis, cancer, kidney ailments and menopausal syndromes.
- Scope for manufacturing numerous processed food products.
- Widely used as a source of animal feed.

Soybean – A Multi Usage Commodity

Soybeans are found in hundreds of human foods, animal feeds and industrial products. It is used in all available forms like whole seeds, sprouted seeds, oil and meal. Soybean is consumed as a whole. It includes various types of edible forms of soybean like bean sprouts, baked soybean and soybean flour for baking purposes, roasted soybean for confectionary purposes, soy butter, soy coffee and most importantly soy seed.

Major constituents of Soybean:

Components	Percentage
Proteins	40
Carbohydrates	30
Fibre	05
Lecithins	0.5
Saponins	04
Oil	18-20

Soybean Oil: About 97 percent of soybean oil is used in a wide range of products for human use, such as cooking oils, salad dressings, sandwich spreads, margarine, salad oils, coffee creamer, mayonnaise, shortenings, chocolate coatings and flour ingredient medicines.




Soybean oil is also used in such industrial products as printing inks, cosmetics, linoleum, vinyl plastics, paints, compounds, pesticides, glue, protective coatings, yeast, soaps, shampoos and detergents, rubber.

Soybean Meal: Soybean meal is remnant after the soy oil is being extracted. It has high protein content and is easily digestible and that is why it serves as a very good fertilizer and as an animal feed. It accounts for about 65% of the world's total feed.

About 98 percent of soybean meal is used as a feed ingredient in mixed rations for poultry, hogs, and beef and dairy cattle. High-protein (48 percent) soybean meal is used as a starter ration and high-performance feed. A lower-protein soybean meal (44 percent) also may be produced by adding the high-fiber hulls for use in bulky feeds, or as a carrier for molasses and other ingredients.

Global Soybean Crop Calendar

Country	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USA					Planting	Planting	Flowering	Flowering		Harvesting	Harvesting	
Brazil		Flowering	Flowering		Harvesting	Harvesting					Planting	Planting
Argentina	Flowering	Flowering	Flowering	Harvesting	Harvesting						Planting	Planting
China				Planting	Planting	Flowering	Flowering	Flowering	Harvesting	Harvesting		
India						Planting	Planting	Flowering	Harvesting	Harvesting	Harvesting	Harvesting

-  Planting
-  Flowering
-  Harvesting

Season

Soybean grows well in warm and moist climate. A temperature of 26.5 to 30°C appears to be the optimum for most of the soybean varieties. Soil temperatures of 15.5°C or above favour rapid germination and vigorous seedling growth. The minimum temperature for effective growth is about 10°C. A lower temperature tends to delay the flowering. Day length is the key factor in most of the soybean varieties as they are short day plant and are sensitive to photo-periods. Most of the varieties will flower and mature quickly if grown under condition where the day length is less than 14 hours provided that temperatures are also favourable. The time of planting is a very important consideration in soybean.

Soil

Well drained and fertile loam soils with a pH between 6.0 and 7.5 are most suitable for the cultivation of soybean. Sodic and saline soils inhibit germination of seeds. In acidic soils, liming has to be done to raise the pH to about seven. Water logging is injurious to the crop.

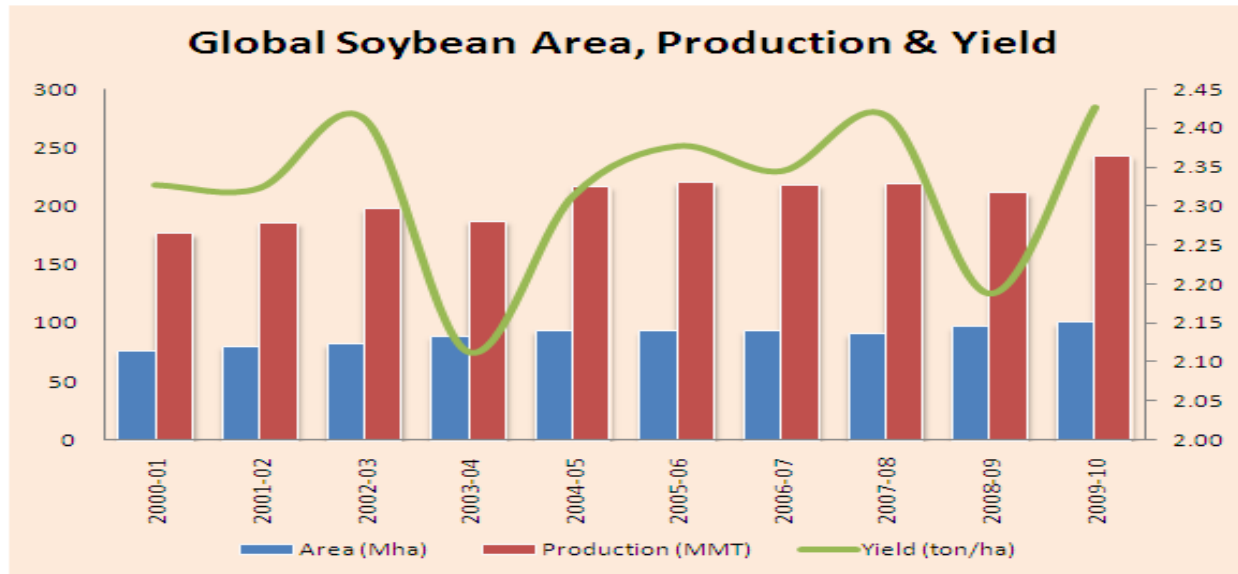
Cultivation Pattern

Soybean is basically a summer crop, as it needs a hot and humid climate to grow. It is a bush like green plant which borne the soy seeds. The soybean plant usually needs 2 months to get mature. When the seeds start to get mature, the leaves of the plant start to fall. This is the stage when the harvesting of this crop is done. The interesting feature of the legume crop is, it fixes atmospheric nitrogen to the soil through root nodules. Any crop grown in rotation after soybean requires less nitrogen.

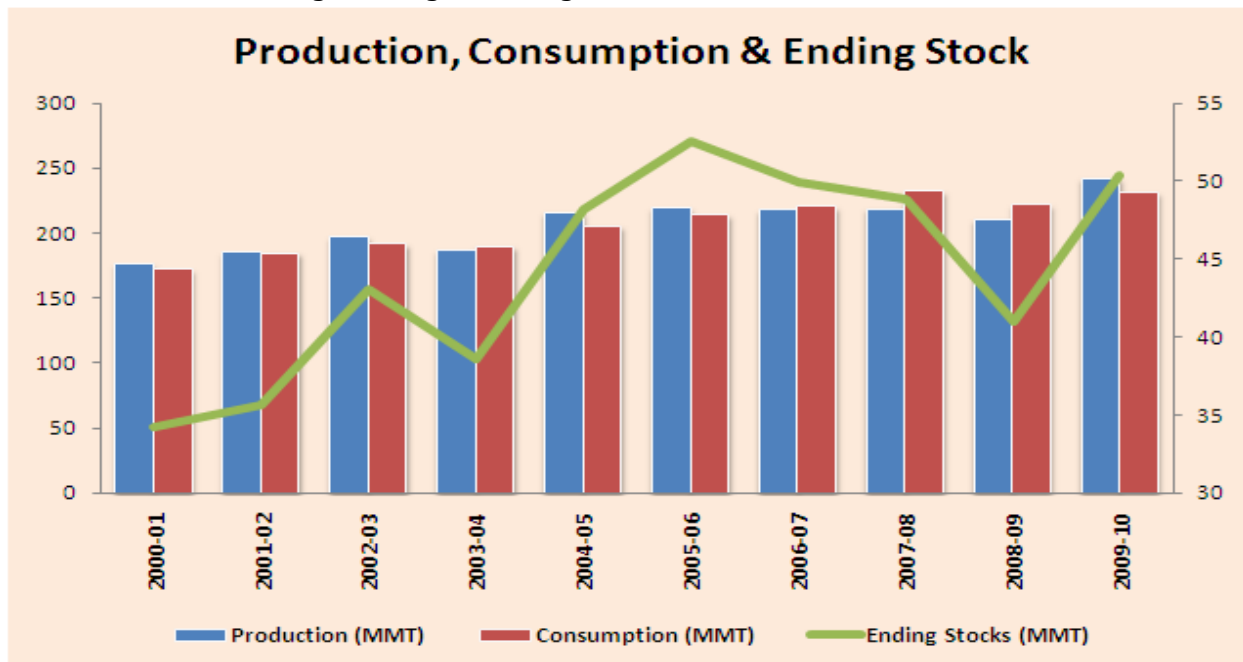
The prices of Soybeans, oil and meal are mainly determined by the supply and demand characteristics. The substitutable nature of these commodities with other similar products necessitates the analysis of production and consumption of the oil seeds and vegetable oils as a whole and their relative production, consumption and prices of other oil seeds, oil and meals.

Global Scenario

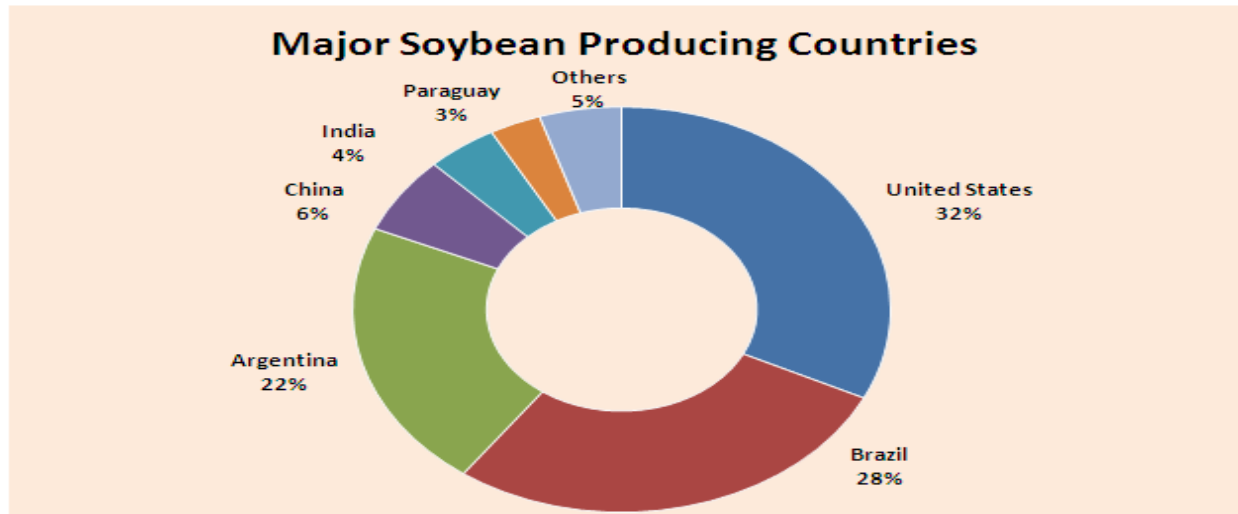
Soybean is one of the major oilseed crops in the world, which account 57% of total oilseed production in the world, among this, 85% of the world's production is crushed for oil. The edible oil recovery is around 17-18% while the meal forms around 80%. The other uses of Soybeans are for preparation of food products like Soya Milk, Tofu, Nuggets, Flour, and Extruded Proteins etc and also as Seed for the next crop. The soy oil is mainly consumed for the edible purposes while industry also uses the oil for drying purposes in the adhesive and varnishes etc. Less than 2% of the oil manufactured is used for industrial purposes and the rest is used for edible purposes.



The world soybean acreage has been growing constantly at a compounded annual growth rate of approximately 4.82%. The plantation of soybean in American states is highly dependent on its comparative returns with that of corn plantation. For 2009-10, United States Department of Agriculture has projected world soybean production at 242.07 million tons, up from 210.62 million tons produced last year. A record area under soybean cultivation this year supported by favourable weather condition during critical growth stages.



From the above graph, it could be seen that till 2005-06, global soybean production was higher than consumption and then onwards it took a U-turn as the consumption demand increased manifold due to increased use of soybean in various kinds like food, feed and fuel. The consumption demand of soybean surged marginally lead by China. As a result of declined production and increased consumption, ending stocks dropped marginally compared to last year.



USA, Brazil, Argentina, China and India are the largest soybean producing countries in the world. Since these five countries contribute roughly 92% of the total world soybean production, the agro economics and agro climatic conditions of these countries has an impact on the supply and therefore on the prices of the soy complex. The acreage of countries like Brazil, Argentina and India has been growing at a faster rate than other countries. China and India are the largest importers of Soy seeds and Soy oil respectively. These countries heavily depend on Argentina and Brazil to meet their growing domestic demand for vegetable oils. The acreage of Soy seeds in US is highly dependent on the favorable climatic conditions. However, with the increasing demand of corn for ethanol purposes and soy crops for bio-diesel purposes, US farmers plant both the crops, thus making corn and soy as the two largest crops grown in US.

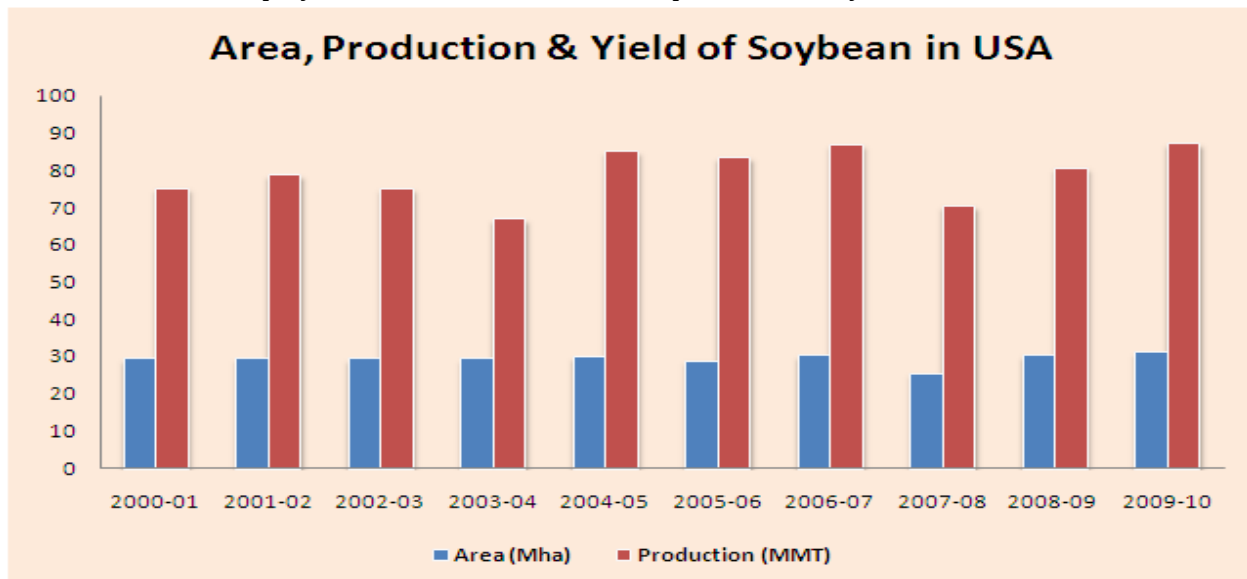
Country wise Trade Profile

COUNTRY	SOYBEAN	SOY OIL
United States	61% of the beans produced are used domestically and rest is exported.	A huge share of production (93%) is consumed domestically and exports are very minimal.
Brazil	Approximately half of the bean production (54%) is used for domestic purpose and rest is exported (46%).	Majority share is consumed for their own usage (58%) and around 1/4 th is exported.
Argentina	More than 1/8 th of the production is consumed domestically and less is exported.	Approximately 1/9 th total production of Soy oil is exported and very less is used for domestic purpose.
China	65% of the total domestic consumption is met by imports and production contributes only 1/3 rd of the total consumption.	80 % of the domestic demand is met by local production and other 20% is imported.
India	Almost the total beans produced are crushed and are used for meeting the growing demand for soy meal and soy oil. Imports are negligible.	Demand is large and is met in the ratio of 60:40 (Imports: Production).

Country wise profile

United States

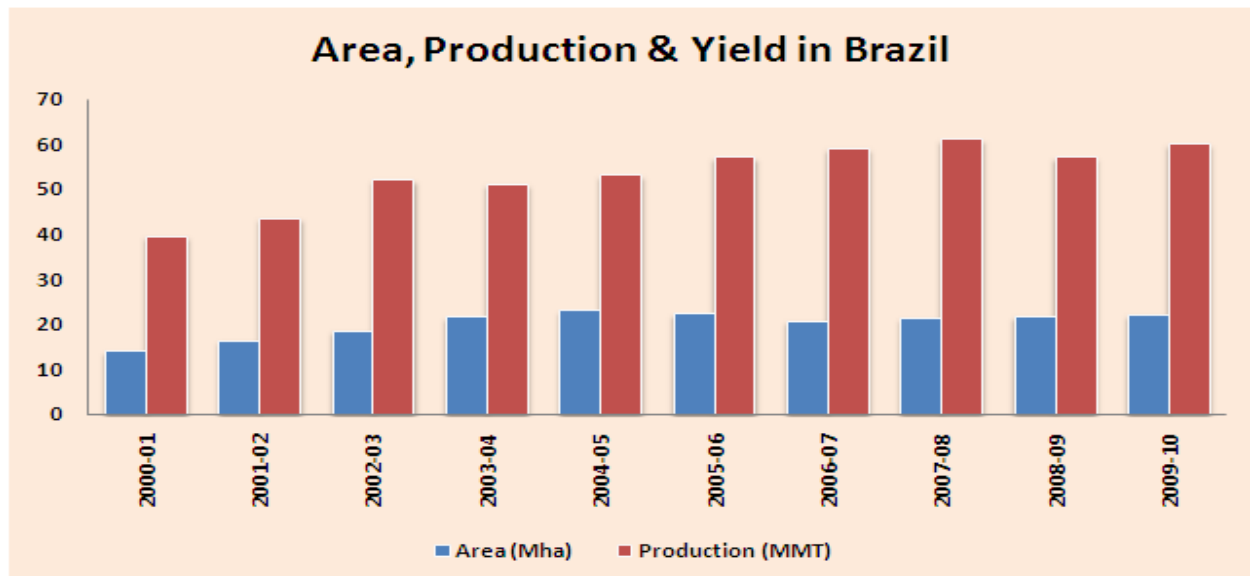
United States is the world's largest producer and exporter of Soybeans. The area under Soybean cultivation has been increasing but could not keep up the pace with the other countries. But in the current year, US farmers have increased acreage under bean cultivation diverting corn area following sharp rise in prices of soybean prices last season. Moreover, favorable weather condition in soybean growing areas of US also boosted the higher acreage. In the current year, US farmers have planted soybean in an area of 77.7 million acres against 75.7 million acres planted last year. For 2008-09, United States Department of Agriculture has projected US soybean production at 87.06 million tons, up by 8% from 80.53 million tons produced last year.



Sowing of soybean in US starts from first week of May and extends till mid July. The flowering starts from July and continue till August and arrivals start from last week of September and lasts till last week of November. The yields and production of Soybean therefore highly depends upon the rainfall during the flowering and grain filling stage (July to September) and the extent of crop damage due to pests and diseases. The soybean competes with corn for acreage in the major producing states of US and acreage depends upon the relative prices of corn and net returns to the farmer from these crops.

Brazil

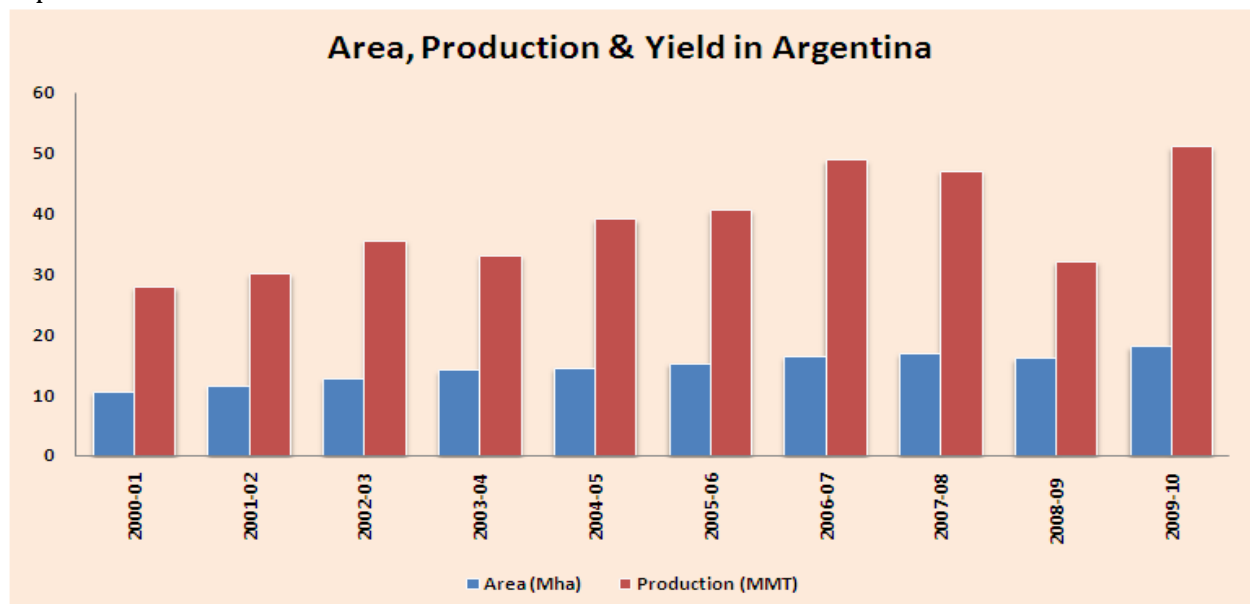
Brazil is the second largest producer and exporter of Soybeans in the world. The acreages of Soybean in Brazil have been growing faster than any other major producer in the world. The major producing centers are concentrated in the southern coastal regions of Brazil which are nearer to the ports. The development of infrastructural and transport facilities have facilitated the expansion of Soy growing regions in the interior regions also. The sowing for Soybean commences from the last fortnight of October till December, the harvest of which arrives in the markets in the months of March to May. The critical stages for moisture stress are the flowering and grain filling stage (second fortnight of January to first week of March). The major producing centers are Mato Grosso, Parana, Rio Grande Do Sul, and Goias which contribute to 80% of Brazil's production.



For the year 2009-10, United States Department of Agriculture has projected the Brazil's soybean production at 60 million tons against 57 million tons produced last year.

Argentina

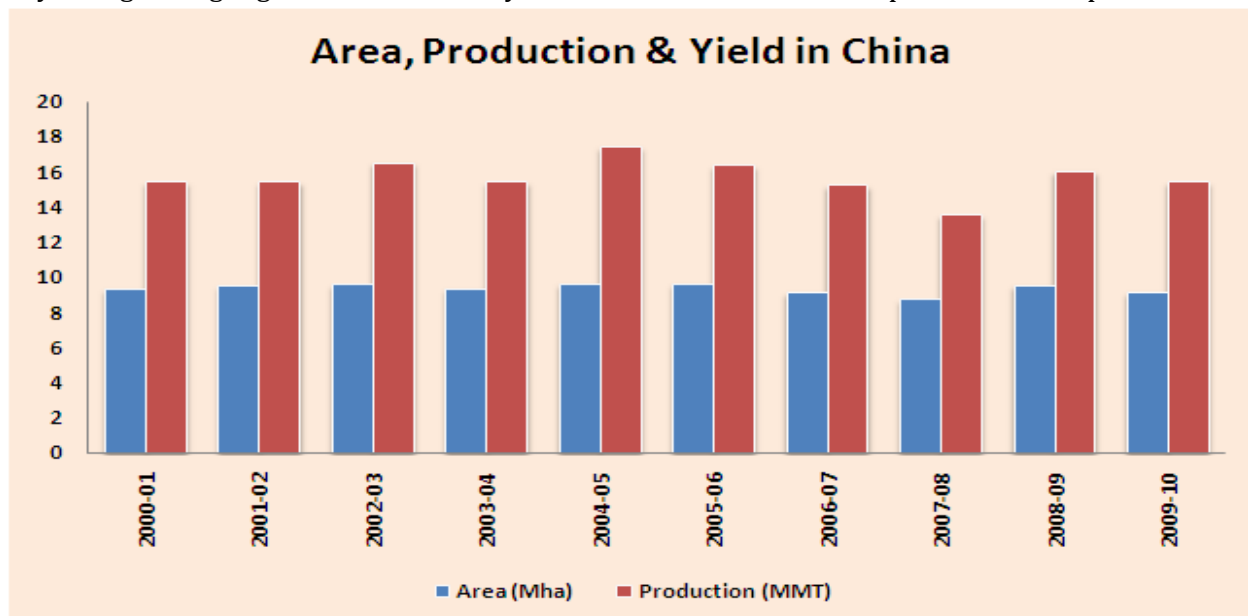
Argentina is the 3rd largest producer of soybean, which contributes about roughly 19% of world's production. The Soybean acreage in Argentina has shown a tremendous rise since 1990-91. The major Soybean growing regions of Argentina are Cordoba, Santa Fe and Buenos Aires, which are located on the eastern side of the country and constitute 77% of the area. In 2008-09, Argentina soybean production declined sharply to 32 million tonnes from 47 million tonnes due to drought condition, which was severe in last four decades. However, with the improvement in weather condition, the soybean acreage is likely to increase in the current year. For 2009-10, production is expected at 51 million tonnes.



The Soybean crop in Argentina is sown during November- December and the harvest of which arrives in the markets during April-May. The flowering and grain filling stages during February-March are critical for moisture stress. In the areas where Soybean is double cropped after winter wheat, the crop calendar is delayed by one month.

China

China is the 4th largest producer of soybean and it is also the largest importer of Soybeans in the world. China typically imports high quantities of Soybean and processes them into Oil and Meal. The major growing regions of China are in the north eastern provinces of China. The sowing of Soybean starts in the months of April- May and the market arrivals of the fresh crop start in the months of September-October. The provinces of Heilongjiang, Shandong and Henan have the major Soybean growing regions of china. Today China has turned from net exporter to net importer.



Indian Scenario

In India, soybean is grown in kharif season with the commencement of South West monsoon. Sowing operations starts in the month of June and continue till July end. Like other agricultural crops it also passes through various growth stages and climatic condition play crucial role in deciding the final output. Its harvesting begins from end October and good quantum of arrivals can be seen till December end. From January onwards the flow of the produce eases down.

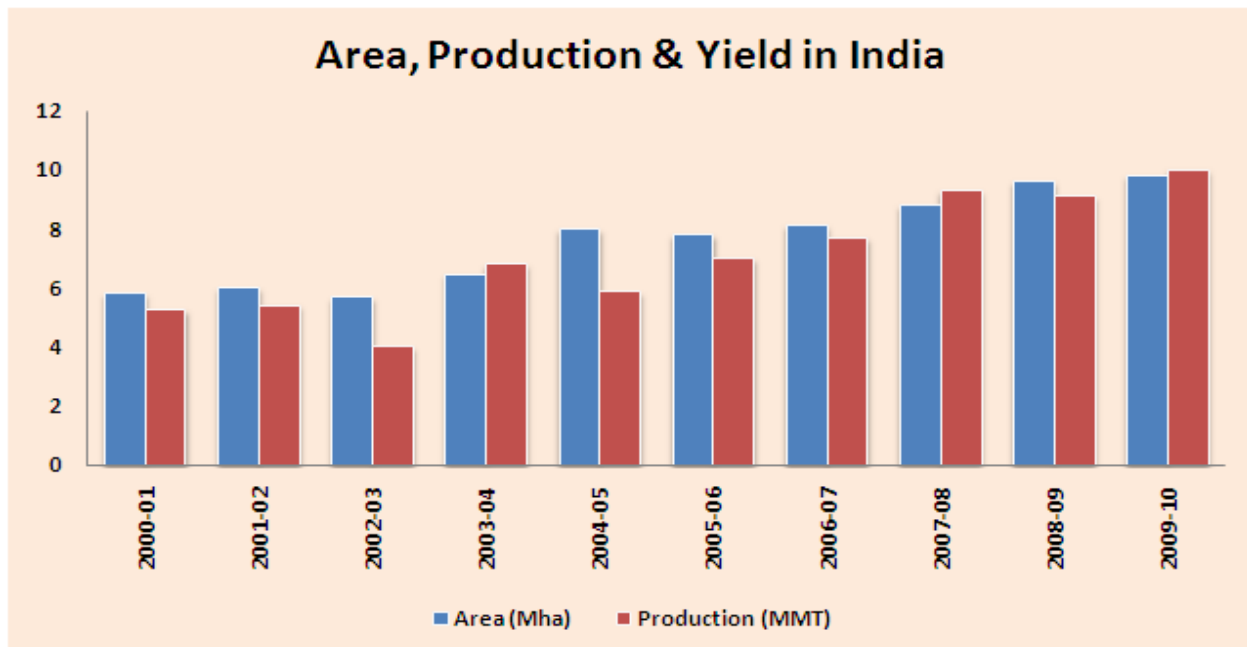
Cropping pattern in India

In India, sowing of soybean starts after first spell of South West Monsoon rains i.e., from June and continue till end of July. Flowering stage starts from second fortnight of July till third week of August. Pod setting, a crucial period starts from last week of August and continue till end of September. Harvesting starts by end of August. Market arrivals starts from September till last week of December.

Demand Analysis – India

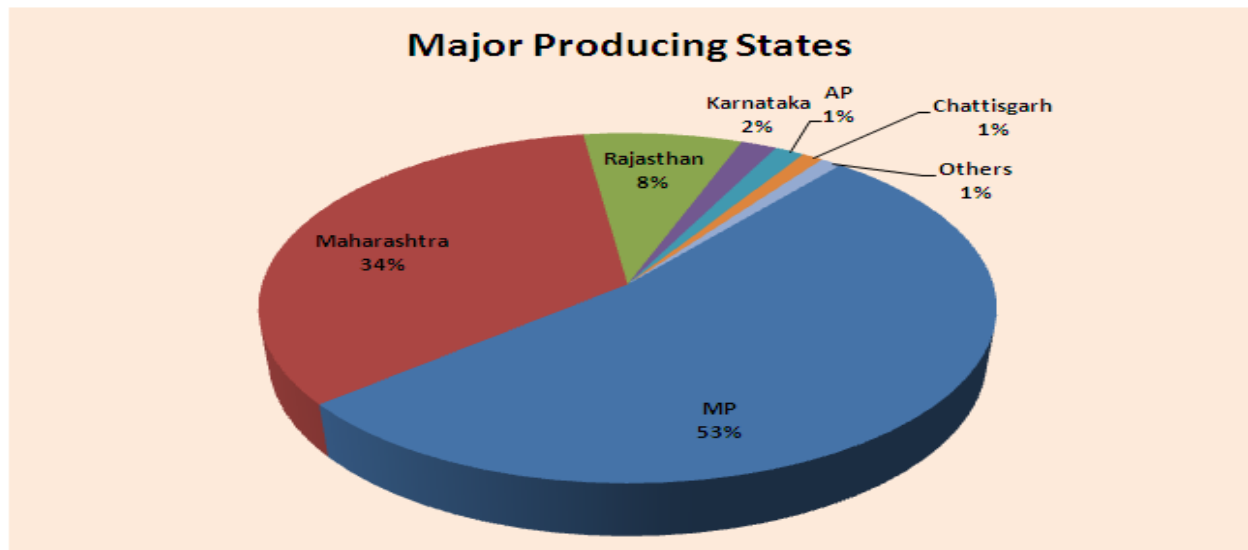
In India, soybean is mainly used for crushing purpose to get the meal. There is good export demand for Indian soy meal especially from South East Asian countries. The reason behind this is the proximity and availability of non-GMO soy meal. Of the total soybean produced in the country 60-70% goes for crushing and remaining is used directly. The varied uses of Soybean and increasing per capita consumption of Soy Oil due to its high protein content drives up the demand of this oil seed. The other major demand driving factor is its return compared to other major Indian oil seeds like Groundnut, Sunflower, Cotton seed and Rapeseed. The Soy oil prices and its competitiveness with respect to Palm oil prices also influence the demand for this oil seed.

Production Scenario



Soybean area in India has seen a tremendous change from below a million hectares levels in 1981-82 to 9.6 million hectares in the current year. But production was unpredictable due to fluctuating yield levels. In the current decade, Indian bean production is hovering in the range of 5-10 million tonnes significantly higher than previous decade due to restless efforts done by State Agriculture Universities, various research institutes and continuous encouragement provided by both central as well as state governments.

State Wise Production



Madhya Pradesh, known as Soy Bowl of India, is the single largest soybean producer in India contributing 53% to the total country's production followed by Maharashtra (34%), Rajasthan (8%), Karnataka (1%) and Andhra Pradesh (1%).

Present Scenario

Since soybean is a kharif crop, it's sowing starts in India with the commencement of South West Monsoon. In 09, the most awaited monsoon hit the Indian mainland on May 26th, 2008 a week prior to normal date i.e., June 1. The monsoon activity during initial days was very aggressive, but, later it entered into a stagnant phase for more than 2-weeks resulting into slow pace of sowing. But, from July end onwards the sowing picked up following revival of monsoon, which brought enough rains to the growing areas.

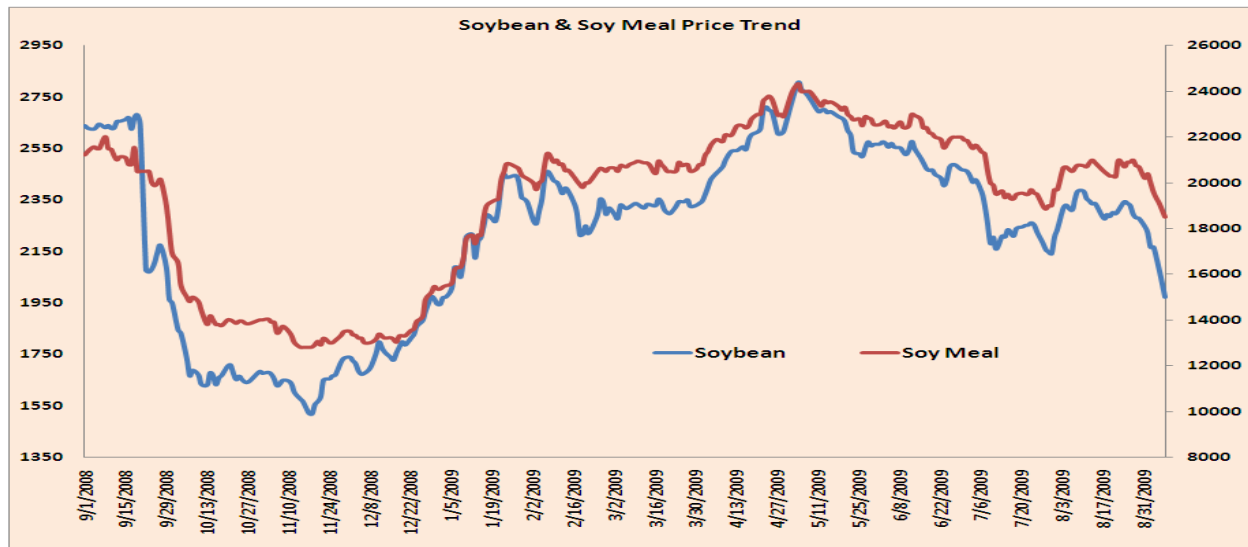
Area brought under Soybean Cultivation

	2008	2009	% Change
10-Jul	53.99	31.62	-41.43
17-Jul	72.37	71.36	-1.40
31-Jul	87.75	90.74	3.41
06-Aug	91.31	93.68	2.60
13-Aug	92.78	93.77	1.07
20-Aug	94.13	94.49	0.38
27-Aug	95.19	94.95	-0.25
03-Sep	95.38	94.96	-0.44

As mentioned above, the soybean sowing was dull due to lackluster performance of the monsoon. However, from July end onwards, the sowing activity regained. According to latest Weather Watch Report released by Union Ministry of Agriculture, till 3rd September area brought under soybean cultivation was 94.96 lakh hectares against 95.38 million hectares planted in the same period a year ago. Though the area sown is

slightly lower than last year, production is expected to be higher compared to last year thanks to better yield level.

Price Movement



Soybean prices in Indian market are largely dependent on prices of soy meal. This movement can be seen in the above mentioned graph. This indicates price movement of soy meal drives the prices of soybean. Looking into soy meal demand, Indian oil extractors procure beans from the market. The basic reason is, on crushing soybean yields 80% of meal and 18-20% of oil. Soy Oil price movement does not have direct impact of soybean price movement because it closely tracks the international edible oil market. India is the largest exporter of soy meal in Asian continent and major destinations are Vietnam, Thailand, Philippines, Korea etc.

Soy meal exports

India is the largest exporter of soy meal in Asian continent and it exports the meal to South East Asian countries. In the first 5-months of current FY 09-10, India has exported 472,614 tonnes of soy meal, down by 70.38% from 1,595,886 tonnes shipped in the same period last year. The export was lower than last year in all the months of current FY 09-10 due to lack of demand from South East Asian countries. Moreover, high export price, which was above \$400 per tonne. Apart from that, outbreak of swine-flu in most of the countries also resulted into fall in the export of oil meal from India.

	2008	2009	% Change
Apr	539175	100106	-81.43
May	326675	77018	-76.42
Jun	241508	109923	-54.48
Jul	582438	58268	-90.00
Aug	205890	127299	-38.17
Total	472,614	1,595,886	-70.38

Soy oil import

India is the third largest importer of edible oil in the world. It mainly imports palm complex and crude soy oil. In India, major vegetable oils used for culinary purposes are sunflower, groundnut, palm, soy, safflower, mustard etc. Among these sunflower oil finds its first place because of its healthy properties. In the recent past, soy oil usage has gathered momentum as it also displayed

healthy properties. Production of soy oil in India is not sufficient to meet the domestic demand. So in order to meet these shortages India imports majority of soy oil.

Import of soy oil into the country is under government control. In order to protect the interest of the domestic players and to ensure availability of soy oil in time and at fair price to the consumer, it fixes the rate at which importers need to import soy oil. Of the total vegetable oil import, Soy oil imports accounts for 37%.

	2008	2009
Nov	0	0
Dec	7500	60899
Jan	83750	66563
Feb	81634	153887
Mar	55232	46346
Apr	0	26206
May	7000	48102
Jun	120030	258501
Jul	63753	66212
Total	418899	726716

In the current oil year (Nov'08-Jul'09), soyoil imports into the country touched a record high of 726,716 tonnes, up by 73.48% from 418,899 tonnes imported in the same period last year. Lower international price and slash in import duty on edible oils to the lowest levels—crude edible oil to zero level and refined oil a flat 7.5% from the earlier 45-52.5% duty slab resulted into a record soy oil imports into the country. Apart from customs duty, the federal also fixes base import tariff for calculating tax to be paid by the importer to the government. Earlier, this tariff was subjected to revision on every fortnight, but from December 2006 onwards there is no change in the tariff structure. Presently, applicable base import tariff value is \$447 per tonne for crude palm oil and \$580 per tonne for soy oil.

Price Outlook

The soybean futures prices have fallen dramatically from 2414 levels to a contract low of 1948 levels registering a decline of 19.30%. Hence, a smart recovery can be expected in the near term, however, overall trend is still bearish for the prices

- The standing soybean crop is entering into maturity stage and getting ready for harvesting
- Present weather condition is conducive for proper growth of the crop
- Soybean production is expected to touch 10 million tonnes based on higher acreage and yield level
- The yield level is expected to cross 1,000 kg/ha
- On international front, the global benchmark CBOT Soybean futures are projected to fall on account of higher production projection compared to last year
- Bearish demand outlook and reports of sale of soybean by China from its reserve will exert pressure on the market
- US soybean crop is ready for harvesting and arrival pressure will put pressure on the market

Technical Outlook

Soybean CBOT

CBOT Soybean Futures are trading in the range of \$10.80 to \$9.80 levels for the last three months. This month Soy Futures witnessed a downside break out below \$9.80 levels which helped the market to trade lower. The immediate Support is seen at \$8.90 levels and a close below these levels will push market further down to \$7.30 levels.

Soy futures are trading below 20, 50 EMA monthly averages which stand at (\$10.64 & \$9.53) indicating further short term downfall in the coming months. Market is trading above the 200 EMA monthly averages which stand at (\$7.30) and it is likely to test these levels in the coming months before resuming a fresh short term trend.

Elliot Wave Count:

The Elliot wave Count is suggesting currently market is in the minor wave-C; a part of intermediate wave (C) of CYCLE-2 indicating market may fall further in the coming months and may test around \$7.64 levels initially before resuming the fresh trend.

RSI-14 day IS trading at (0.45) levels indicating further downfall & MACD in the weekly charts given bearish cutover further supporting of the Soy Futures in the short term





Outlook:

Soybean futures are expected to trade sideways to downside in the coming months with trading range of \$7.60 to \$10.60

Supports: \$8.70, \$7.64, Resistance: \$9.80, \$10.60

NCDEX Soybean futures are expected to fall further to 1800 levels, however short term charts are in oversold zone and market may take a mild higher correction before start to fall further.

Recommendation: Sell Soybean-October-NCDEX around 2140 to 2150 levels targeting 1975, 1920 levels with SL above 2220 levels

Soy oil- CBOT

CBOT Soy oil futures are trading in a narrow price channel of 28.20 to 42.40 (Nov 2008 to till date) after the mammoth fall from 66.08 levels which started in July 2008.

CBOT Soy oil prices are consolidating at these levels and a price break out of either side would give the market fresh direction.

A close below 32.00 levels will help market to gain downside momentum further to test 30.00 & 28.20 levels.

Soy Oil Futures are trading below the 20, 50 EMA monthly averages which stand at (38.47, 36.34) indicating market weakness. However Market is above 200 EMA monthly averages which stand at

(27.56) and market may take support from these levels. RSI (14 day) is trading at 0.44 levels indicating further downside strength in the market.



Outlook

CBOT Soy Oil Futures are expected to trade sideways and market may take steep higher correction for its fall from July 2008, if it settles above USd38.60 levels (23.6% Retracement level) up to USd45.20 levels

Supports: USd32.00, USd30.00 and USd28.20

Resistance: USd38.60, USd42.40

Soy Oil October NCDEX Futures are nearing oversold zone and downfall in the Soy oil futures may continue up to 410 levels and market may take some correction up to 450 levels from there on to continue the falling trend.

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