

SEASONAL COMMODITY INSIGHT

19th January 2015

Groundnut Meal

Domestic Scenario

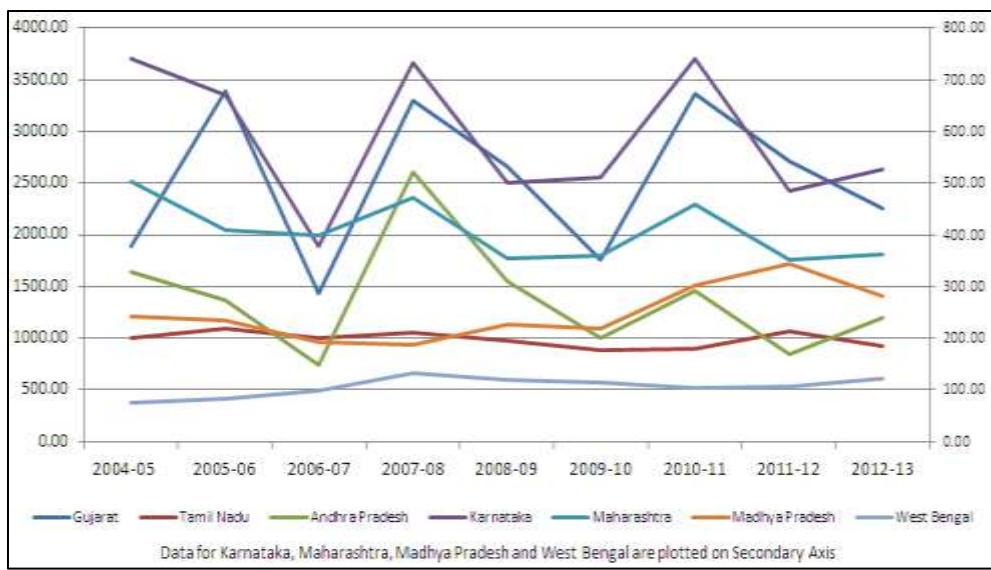
Groundnut, or peanut, is commonly called the poor man's nut. Today it is an important oilseed and food crop. This plant is native to South America and has never been found uncultivated. Groundnut is the single largest source of edible oils in India and constitutes roughly about 15 per cent of the total oilseed production. Paralleling area under production, about 90 per cent of the production comes from the five major states in India. These states are Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu and Maharashtra. Andhra Pradesh and Gujarat alone contributes to about 88 per cent of the total production. India's groundnut production fluctuates between 4.5 to 10 million MT a year. Groundnut is grown both in kharif and rabi season. Gujarat accounts for over 34.5 per cent of India's groundnut seed production, followed by Andhra Pradesh (18.38 per cent) and Tamil Nadu (14.16 per cent).

State wise Production of Groundnut in India

| States | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Gujarat | 1886.60 | 3389.00 | 1435.00 | 3299.00 | 2661.00 | 1757.00 | 3366.10 | 2717.00 | 2251.82 |
| Tamil Nadu | 1005.30 | 1098.20 | 1006.50 | 1047.60 | 974.60 | 889.77 | 895.70 | 1060.65 | 920.79 |
| Andhra Pradesh | 1639.50 | 1366.00 | 743.00 | 2604.00 | 1554.10 | 1006.00 | 1458.00 | 844.00 | 1195.42 |
| Karnataka | 742.00 | 671.00 | 379.00 | 733.00 | 501.00 | 512.00 | 742.00 | 485.00 | 527.00 |
| Maharashtra | 502.00 | 410.00 | 399.00 | 472.00 | 355.00 | 359.00 | 460.00 | 351.00 | 362.00 |
| Madhya Pradesh | 242.70 | 234.40 | 193.40 | 186.80 | 227.60 | 217.90 | 301.60 | 344.60 | 280.68 |
| West Bengal | 75.50 | 83.10 | 98.30 | 132.70 | 118.30 | 113.02 | 103.17 | 105.57 | 122.11 |
| Others | 680.80 | 741.60 | 609.30 | 707.40 | 776.50 | 573.81 | 938.21 | 1055.89 | 842.79 |
| All India | 6774.40 | 7993.30 | 4863.50 | 9182.50 | 7168.10 | 5428.49 | 8264.78 | 6963.72 | 6502.61 |

Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation & Solvent Extractors' Association of India

The average Indian consumption of groundnut is 5 million MT per year. The Indian variety of groundnut has 45-48 per cent oil content of which 30 per cent can be extracted, while the rest is retained by the cake. Among prominent cultivated crops in the developing countries, groundnut is unique because the plant and its produce have a wide range of uses in the daily life of the people as well as in the various industries. The roots of the plant help to enrich the soil and the vines serve as excellent fodder for cattle. The nuts, in addition to being the most consequential



source of edible oil, are useful in numerous other ways. When the cake is powdered and extracted in solvent, it yields defatted groundnut meal. Thus the crop has gained great popularity, based on its all-around usefulness and the financial returns it brings to the grower. Approximately one-third of world production is used in the confectionery products. Utilization of oil, meal and confectionery groundnuts are all increasing concurrent with a gradual shift away from oil and meal into confectionery use. In many groundnut-producing countries, several products and by-products are processed and consumed locally as a few are exported too. Among the by-products traded in the international market is peanut butter and roasted groundnuts.

International Scenario

From the above table we can see that the global production over the years have shown gradual improvement. It showed an increase of about 6.69 per cent since 2001-02. The domestic consumption has also shown a marginal improvement of 6.21 per cent. But, the imports and exports have dropped significantly by 80.58 per cent and 72.49 per cent respectively. The negative fact about the groundnut meal trade is the level of decline in global trade. There has been a significant increase in the global ending stock over the above period, which is the price limiting factor but I feel that the enhanced demand from China & Europe is going to comfortably absorb the increased ending stock and sustain the prices on the upper levels.

Global Groundnut Meal Balance sheet

(million MT)

| Years | Beginning Stocks | Production | Imports | Exports | Tot. Dom. Consumption | Ending Stocks |
|---------|------------------|------------|---------|---------|-----------------------|---------------|
| 2001-02 | 24 | 6,382 | 278 | 269 | 6,394 | 21 |
| 2002-03 | 21 | 5,846 | 110 | 97 | 5,861 | 19 |
| 2003-04 | 19 | 6,361 | 260 | 286 | 6,289 | 65 |
| 2004-05 | 65 | 6,298 | 122 | 148 | 6,265 | 72 |
| 2005-06 | 72 | 6,088 | 199 | 235 | 6,058 | 66 |
| 2006-07 | 66 | 5,490 | 163 | 203 | 5,496 | 20 |
| 2007-08 | 20 | 5,973 | 141 | 169 | 5,944 | 21 |
| 2008-09 | 21 | 6,261 | 60 | 91 | 6,179 | 72 |
| 2009-10 | 72 | 5,946 | 112 | 127 | 5,941 | 62 |
| 2010-11 | 62 | 6,462 | 118 | 149 | 6,423 | 70 |
| 2011-12 | 70 | 6,459 | 44 | 65 | 6,464 | 44 |
| 2012-13 | 44 | 6,726 | 33 | 78 | 6,687 | 38 |
| 2013-14 | 38 | 6,832 | 87 | 76 | 6,839 | 42 |
| 2014-15 | 42 | 6,809 | 54 | 74 | 6,791 | 40 |

Source: Foreign Agricultural Service, Official USDA Estimates

Countries like South Africa, India, China and Egypt have good potential to utilize the opportunity to export groundnuts or groundnut products to the developed countries. They can earn valuable foreign exchange to improve their economic conditions. In the international market demand for groundnut products is determined by several factors. The primary factor in Africa has been population growth. In Asia, demand has grown due to a combination of population growth, increase in per capita income and urbanization. Expansion of urban areas signals higher incomes, higher opportunity cost of time and therefore greater demand for convenience foods. Groundnut production and consumption in the period up to 2010 is likely to shift progressively more to developing countries. This boost will be seen in all regions with most rapid growth in Asia. Per capita consumption will grow sharply in Asia, slowly in sub-Saharan Africa and will decline in Latin America.

Country wise global Supply –n – Demand of Groundnut ('000 MT)

| Country | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Production (1000 MT) | | | | | | | | |
| China | 13027 | 14286 | 14708 | 15644 | 16046 | 16692 | 16972 | 16500 |
| India | 6800 | 6250 | 4900 | 5850 | 5500 | 5000 | 5650 | 5000 |
| Nigeria | 2847 | 2873 | 2978 | 3799 | 2963 | 3070 | 3000 | 3000 |
| United States | 1666 | 2342 | 1675 | 1886 | 1660 | 3064 | 1893 | 2363 |
| Burma | 1088 | 1202 | 1305 | 1362 | 1399 | 1372 | 1400 | 1400 |
| Indonesia | 1150 | 1250 | 1250 | 1250 | 1165 | 1145 | 1160 | 1150 |
| Argentina | 800 | 860 | 836 | 1033 | 1023 | 1016 | 997 | 1000 |
| Others | 6673 | 8069 | 8469 | 8992 | 8572 | 8760 | 8763 | 8716 |
| World | 34051 | 37132 | 36121 | 39816 | 38328 | 40119 | 39835 | 39129 |
| Total Dom. Cons. (1000 MT) | | | | | | | | |
| China | 12328 | 13600 | 14101 | 15112 | 15495 | 16203 | 16437 | 16200 |
| India | 6298 | 5830 | 4520 | 4920 | 4505 | 4570 | 4745 | 4575 |
| Nigeria | 2855 | 2881 | 2986 | 3450 | 3328 | 3078 | 3008 | 3008 |
| United States | 1581 | 1553 | 1576 | 1781 | 1760 | 1776 | 1850 | 1870 |
| Indonesia | 1401 | 1465 | 1487 | 1499 | 1442 | 1490 | 1460 | 1460 |
| Burma | 1073 | 1197 | 1290 | 1330 | 1393 | 1430 | 1420 | 1415 |
| Sudan | 561 | 713 | 891 | 808 | 1171 | 1018 | 835 | 851 |
| Tanzania | 398 | 331 | 338 | 455 | 641 | 800 | 790 | 790 |
| Vietnam | 490 | 503 | 531 | 642 | 682 | 710 | 735 | 760 |
| European Union | 709 | 689 | 680 | 687 | 674 | 729 | 734 | 736 |
| Senegal | 329 | 738 | 1005 | 1059 | 678 | 682 | 620 | 680 |
| Others | 5714 | 6511 | 6449 | 6780 | 6691 | 6592 | 6662 | 6651 |
| World | 33737 | 36011 | 35854 | 38523 | 38460 | 39078 | 39296 | 38996 |
| Ending Stocks (1000 MT) | | | | | | | | |
| United States | 468 | 966 | 829 | 688 | 455 | 1257 | 843 | 889 |
| Argentina | 102 | 21 | 10 | 162 | 523 | 713 | 875 | 888 |
| Senegal | 11 | 4 | 29 | 234 | 63 | 28 | 108 | 103 |
| India | 132 | 184 | 108 | 174 | 112 | 20 | 141 | 42 |
| Vietnam | 29 | 33 | 13 | 8 | 118 | 64 | 49 | 39 |
| Mali | 0 | 57 | 37 | 30 | 25 | 29 | 33 | 34 |
| Indonesia | 24 | 40 | 69 | 103 | 46 | 36 | 38 | 30 |
| Sudan | 0 | 0 | 48 | 0 | 11 | 22 | 34 | 30 |
| Burma | 92 | 92 | 102 | 129 | 130 | 67 | 42 | 22 |
| Brazil | 194 | 217 | 166 | 107 | 94 | 22 | 26 | 21 |
| Others | 203 | 184 | 195 | 686 | 184 | 161 | 123 | 94 |
| World | 1255 | 1798 | 1606 | 2321 | 1761 | 2419 | 2312 | 2192 |

Source: Foreign Agricultural Service, Official USDA Estimates

Country wise global Supply –n – Demand of Groundnut Meal ('000 MT)

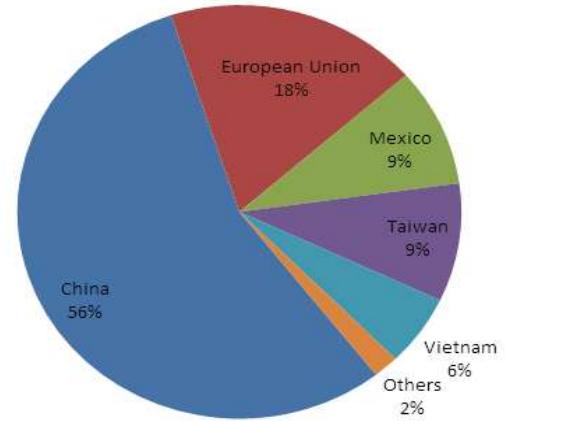
| Country | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Production (1000 MT) | | | | | | | | |
| China | 2,575 | 2,770 | 2,788 | 3,019 | 3,224 | 3,424 | 3,470 | 3,465 |
| India | 1,973 | 1,820 | 1,370 | 1,525 | 1,370 | 1,400 | 1,445 | 1,410 |
| Burma | 225 | 248 | 275 | 290 | 300 | 325 | 325 | 325 |
| Nigeria | 220 | 220 | 228 | 260 | 260 | 240 | 240 | 240 |
| Sudan | 92 | 127 | 180 | 176 | 176 | 176 | 180 | 180 |
| Tanzania | 88 | 70 | 70 | 108 | 140 | 160 | 160 | 160 |
| Senegal | 57 | 182 | 247 | 258 | 138 | 120 | 120 | 140 |
| United States | 108 | 95 | 85 | 114 | 114 | 124 | 123 | 127 |
| Argentina | 94 | 120 | 72 | 52 | 78 | 81 | 95 | 100 |
| Others | 541 | 609 | 631 | 660 | 659 | 676 | 674 | 662 |
| World | 5,973 | 6,261 | 5,946 | 6,462 | 6,459 | 6,726 | 6,832 | 6,809 |
| Total Dom. Cons. (1000 MT) | | | | | | | | |
| China | 2,674 | 2,787 | 2,822 | 3,047 | 3,224 | 3,431 | 3,529 | 3,492 |
| India | 1,843 | 1,776 | 1,324 | 1,459 | 1,362 | 1,385 | 1,435 | 1,405 |
| Burma | 230 | 250 | 277 | 290 | 300 | 320 | 320 | 325 |
| Nigeria | 220 | 220 | 228 | 260 | 260 | 240 | 240 | 240 |
| Sudan | 76 | 111 | 164 | 160 | 160 | 160 | 164 | 164 |
| Tanzania | 88 | 70 | 70 | 108 | 140 | 160 | 160 | 160 |
| United States | 105 | 92 | 83 | 102 | 98 | 111 | 117 | 122 |
| Senegal | 54 | 155 | 214 | 211 | 150 | 118 | 100 | 120 |
| Argentina | 78 | 80 | 72 | 53 | 62 | 65 | 76 | 80 |
| Others | 576 | 638 | 687 | 733 | 708 | 697 | 698 | 683 |
| World | 5,944 | 6,179 | 5,941 | 6,423 | 6,464 | 6,687 | 6,839 | 6,791 |
| Ending Stocks (1000 MT) | | | | | | | | |
| Burma | 9 | 7 | 5 | 5 | 5 | 10 | 15 | 15 |
| Senegal | 0 | 20 | 30 | 35 | 22 | 10 | 10 | 10 |
| Argentina | 7 | 39 | 7 | 1 | 1 | 4 | 5 | 5 |
| United States | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 4 |
| Indonesia | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 |
| Thailand | 0 | 0 | 14 | 11 | 9 | 7 | 5 | 3 |
| Others | 0 | 1 | 0 | 10 | 0 | 0 | 0 | 0 |
| World | 21 | 72 | 62 | 70 | 44 | 38 | 42 | 40 |

Source: Foreign Agricultural Service, Official USDA Estimates

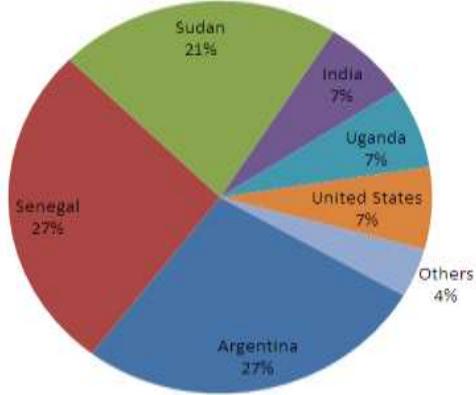
Global Trade Scenario for Groundnut Meal

The top two importing nations accounts for 74.07 per cent of the total global imports of which a whopping 55.56 per cent is done only by China. The second most important destination is EU contributing to 18.52 per cent of the total imports. The other countries worth mentioning are Mexico, Taiwan and Vietnam. Thus, going by the share of the quantum of the imports done in the last year, one should be focused enough to track the prices and the sentiments of Groundnut meal trade in China and EU.

Major Importers of Groundnut Meal in World (2014-15)



Major Exporters of Groundnut Meal in World (2014-15)



The major countries involved in the

export of groundnut meal are explained by the following chart. As per the details three countries are closely competing for the share in the global exports together totaling 75.68 per cent. The leading spot is shared by Argentina and Senegal with shares of 27.03 per cent each closely followed by Sudan at 21.62 per cent. The other exporting nations worth mentioning are India, Uganda and United States, each with respective share of 6.76 per cent.

Major Importers of Groundnut Meal in World

(‘000 MT)

| Country | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|
| China | 101 | 24 | 37 | 32 | 3 | 9 | 60 | 30 |
| European Union | 8 | 7 | 39 | 66 | 18 | 6 | 11 | 10 |
| Mexico | 1 | 2 | 0 | 10 | 15 | 6 | 3 | 5 |
| Taiwan | 5 | 7 | 4 | 5 | 4 | 9 | 9 | 5 |
| Vietnam | 9 | 11 | 6 | 3 | 3 | 3 | 3 | 3 |
| Others | 17 | 9 | 26 | 2 | 1 | 0 | 1 | 1 |
| World | 141 | 60 | 112 | 118 | 44 | 33 | 87 | 54 |

Source: Foreign Agricultural Service, Official USDA Estimates

Major Exporters of Groundnut Meal in World

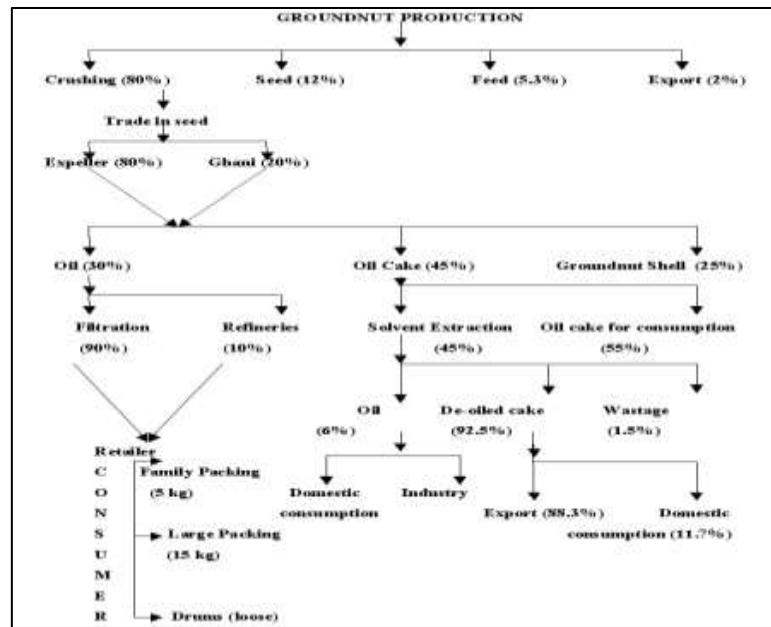
(‘000 MT)

| Country | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Argentina | 9 | 8 | 32 | 5 | 16 | 13 | 18 | 20 |
| Senegal | 3 | 8 | 23 | 42 | 1 | 14 | 20 | 20 |
| Sudan | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| India | 130 | 44 | 46 | 66 | 8 | 15 | 10 | 5 |
| Uganda | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| United States | 4 | 3 | 1 | 11 | 16 | 13 | 6 | 5 |
| Others | 2 | 7 | 4 | 4 | 3 | 2 | 1 | 3 |
| World | 169 | 91 | 127 | 149 | 65 | 78 | 76 | 74 |

Source: Foreign Agricultural Service, Official USDA Estimates

Features India's Groundnut Meal Industry

For a brief understanding of the groundnut meal, the process of making groundnut meal is shown in the adjacent chart. Over half of the groundnut harvested worldwide is crushed for oil and a substantial quantity of groundnut produced in developing countries is traded in domestic markets. International trade of groundnuts is mainly in the form of in shell (pods), shelled (kernels) and meal (cake). A large trade of confectionery groundnut is also booming in the international market. The international price of groundnuts is generally decided by the crop size and quality in United States of America. The fortunes for the Indian groundnut (shelled) export are bright and it may likely to emerge as a major supplier of raw and processed groundnut mainly because of its large production base.



Maximum possible levels of aflatoxin in imported groundnut for human consumption and livestock and poultry feeds

| Country | Aflatoxin type | Maximum permissible level (ng g ⁻¹) | |
|-------------|---|---|----------------|
| | | Foodstuffs | Livestock feed |
| Belgium | B ₁ | 5 | 20 |
| France | B ₁ | 1 | 20 |
| Germany | B ₁ | 2 | 20 |
| Ireland | B ₁ | 5 | 20 |
| Italy | B ₁ | 5 | 20 |
| Netherlands | B ₁ | 0 | 20 |
| Sweden | B ₁ , B ₂ , G ₁ , G ₂ | 5 | 10 |
| UK | B ₁ , B ₂ , G ₁ , G ₂ | 4 | 20 |
| USA | B ₁ , B ₂ , G ₁ , G ₂ | 20 | 20 |

Source: Freeman et al. 1999, ICRISAT

Groundnut oil is thinly traded in international markets, because the major producers like China, India and the United States of America consume substantial amounts in their domestic markets. This national use reduces the quantities available for export. In the 1960s and 1970s groundnut oil was the major item traded as edible groundnut trade was negligible. Since that period, the reverse has occurred. Edible groundnuts dominate world groundnut trade while groundnut oil is of minor importance. The export trade of oil in developing countries is concentrated in Senegal and the Sudan. India has a self-sufficiency policy for vegetable oil, of

which groundnut is a major component. In addition, India has producer subsidies, as do many other countries. Under GATT agreement, these markets would be opened up and costs of production could change. Slightly over half of the groundnut production is crushed into oil for human consumption or industrial uses. Protein meal, a by-product of crushing, is an ingredient in livestock feeds. Groundnut is also consumed directly and is used in processed food and snacks. Approximately one-third of world production is used in the confectionery products. Utilization of oil, meal and confectionery groundnuts are all increasing concurrent with a gradual shift away from oil and meal into confectionery use. In many groundnut-producing countries, several products and by-products

are processed and consumed locally as a few are exported too. Among the by-products traded in the international market are peanut butter and roasted groundnuts.

The world is experiencing a shortage of edible oil and proteins. Groundnut plays a useful role in alleviating these deficiencies as it is a rich source of edible oil and protein. Groundnut has an outer thick woody shell. Inside normally there are 2 or 3 embedded seeds (kernel). The seed consists of 2 cotyledons and the germ covered by an outer thin skin called the testa. The colour of the testa may be red, brown, purple or white depending upon the type and variety. Testa constitutes about 4 to 5 percent of the weight of the kernel. The cotyledons constitute the bulk of the seed in the range of around 92 to 94 percent of the weight. The germ constitutes around 3 to 4 percent of the seed weight. The testa protects the seed against pests and diseases. Cotyledons are the storage organs, which supply food the germ during germination. As a result of these functional differences, the chemical make-up of the parts of the kernel also differ.

Trends in Export of Groundnut Meal

| Year | Groundnut Meal | Total Oil Meal Export | % of total meal Exports |
|---------|----------------|-----------------------|-------------------------|
| 2006-07 | 83,650 | 5,170,700 | 1.62 |
| 2007-08 | 82,725 | 5,442,132 | 1.52 |
| 2008-09 | 54,781 | 5,421,607 | 1.01 |
| 2009-10 | 5,500 | 3,224,787 | 0.17 |
| 2010-11 | 21,480 | 5,071,779 | 0.42 |
| 2011-12 | 2,863 | 5,599,098 | 0.05 |
| 2012-13 | 2,883 | 4,846,013 | 0.06 |
| 2013-14 | 2,167 | 4,331,450 | 0.05 |

Source: Solvent Extractors' Association of India

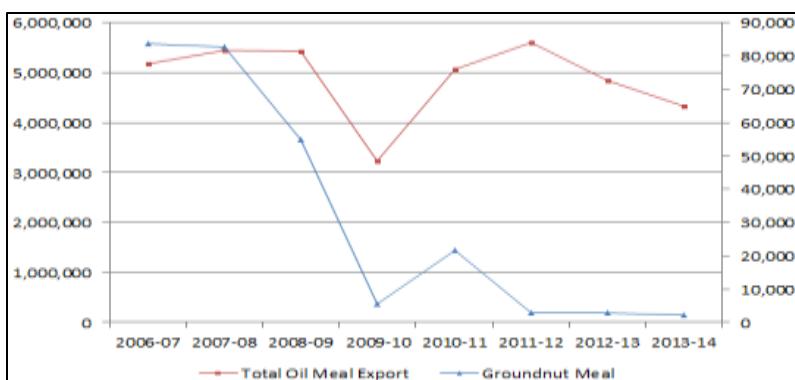
The quantum and direction of Indian groundnut and its meal exports is dealt in the subsequent sections. As the trend suggest, the importance of meal export is declining year on year which, gives an indication that the meal

Chemical Composition of Groundnut Shell, Haulms and Oil Cake

| Constituent | Percentage |
|-----------------|-------------|
| Shell | |
| Cellulose | 65.7 |
| Carbohydrates | 21.2 |
| Proteins | 7.3 |
| Minerals | 4.5 |
| Lipids | 1.2 |
| Haulms | |
| Protein | 8.30-15.0 |
| Lipid | 1.39-2.88 |
| Crude fibre | 22.11-35.35 |
| Carbohydrates | 38.06-46.95 |
| Minerals | 9.0-17.04 |
| Moisture | 7.13-10.0 |
| Oil Cake | |
| Moisture | 8-10 |
| Oil | 0.7-6 |
| Crude protein | 45-60 |
| Carbohydrates | 22-30 |
| Mineral matter | 4-5.7 |
| Crude fibre | 3.8-7.5 |

Source: Reddy, P.S., 1988

trade in groundnut is gradually losing its importance in the global export market. The export of groundnut is also on decline which hints at the localized industrial usage of groundnut in the processing industry. The country wise direction of export of groundnut reveals that Indonesia alone imports 44.51 per cent on the total Indian groundnut. The other countries worth mentioning of the imports are Philippines (11.80 per cent), Malaysia (11.58 per cent), Vietnam (7.91 per cent) and Thailand (4.52 per cent).

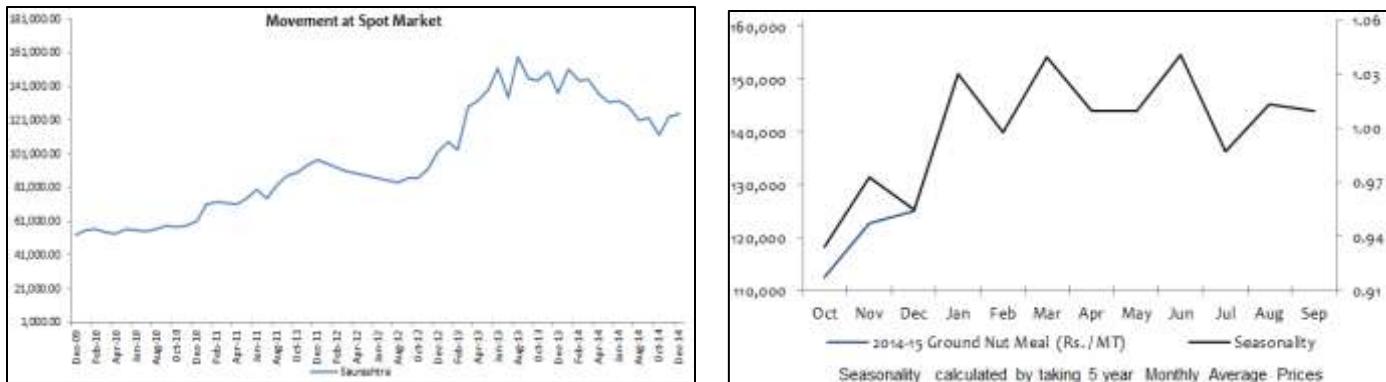


Country wise Export of Groundnut

| Country | 2011-12 | 2012-13 | 2013-14 |
|-------------|---------|---------|---------|
| Indonesia | 252665 | 170179 | 227755 |
| Philippines | 54824 | 57906 | 60384 |
| Malaysia | 76596 | 70276 | 59259 |
| Vietnam | 241497 | 139362 | 40466 |
| Thailand | 32889 | 22766 | 23116 |
| Pakistan | 14039 | 10818 | 13813 |
| Ukraine | 14677 | 11064 | 12577 |
| Russia | 10165 | 3569 | 9438 |
| Mexico | 33274 | 1045 | 2770 |
| China | 38340 | 4721 | 2687 |
| Others | 63657 | 43929 | 59397 |
| World | 832623 | 535635 | 511662 |

Source: Solvent Extractors' Association of India

Price trend Analysis



As per price seasonality index given in the chart, groundnut meal prices touches peak in March and June months that is lean season. The prices remain mostly stable or weak in February-May period that is peak arrival season for groundnut. However, the price movement are largely influenced by global meal demand and it dynamics in the US meal market. The movement in the current years can be bullish as groundnut crop is expected to be lower than 2013-14. The uptrend is expected to continue for the next three -four months due to low carry forward stocks. Fresh crop harvest has started and peak season is in Feb-April. At present, spot prices are trading around Rs 2400-2600 per Quintal.

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