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TRENDS IN AREA, PRODUCTION AND PRODUCTIVITY OF GROUNDNUT CROP IN INDIA

K. Sivaiah
Research Scholar, Dept.of Econometrics, Sri Venkateswara University, Tirupati .

ABSTRACT

India is the largest producer of oilseeds in the world and oilseed sector occupies an important position in the agricultural economy of the country. India ranks first in the production of groundnut, second in rapeseed-mustard, and fifth in soyabean. In the present study, an attempt has been made to know the trends in area, production and productivity of Groundnut in Andhra Pradesh State and Chittoor district. Compound growth rates of area, production and productivity were estimated by appropriate semi log trend equation. It evaluates the area, production and productivity of ground nut at country, state and district level. The present comparative compound growth rate of groundnut production in India, Andhra Pradesh and Chittoor district during the period 2000-01 to 2013-14 was analyzed. The area, production and productivity at India level, Andhra Pradesh and Chittoor district (2000-01 to 2013-14) were collected and presented. Further, the study conducted a comparative state level and district level components of the production. The analysis revealed that in the total production of groundnut varies due to the change in area under the crop as the yield and interaction very small.

KEYWORDS : *Oilseeds, Production, area, productivity, groundnut.*

INTRODUCTION :

India is the largest producer of oilseeds in the world and oilseed sector occupies an important position in the agricultural economy of the country. India is the fifth largest vegetable oil economy in the world, next only to USA, China, Brazil and Argentina, and has an annual turnover of about Rs 80,000 crore. India accounts for 12-15 per cent of oilseeds area, 7-8 per cent of oilseeds production, 6-7 per cent of vegetable oils production, 9-12 per cent of vegetable oils import and 9-10 per cent of the edible oils consumption. Among different oilseeds, groundnut, rapeseed-mustard and soyabean account for about 80 per cent of area and 87 per cent of production of oilseeds in the country (2010-11).

Oil seed production has fallen short of the requirement as a result of increasing per capita consumption in the recent past. This necessitated a heavy impact at the cost of huge foreign

exchange. Ground nut ranks first in India among oil seed crops. It covers 45% of area and accounts for 55% of production of the total oil seeds. India is rated as the third largest producer of groundnut in the world with annual production of over 5-6 million tons. Gujarat, Andhra Pradesh, Tamil Nadu and Karnataka are the leading producers in the country and accounts for nearly 75% of the total output. Groundnut contributes to nearly 25% of total oil seed production in the country. Nearly 75% output occurs in June- September and the rest during November- March known as kharif and rabi seasons respectively. The studies undertaken by research workers at various times mostly related to cereal crops like paddy, wheat, and very limited work has been done on groundnut which is the major oil seed crop of the Andhra Pradesh. Thus, considering the importance and need, the present study has been taken.

Rainfall

The District has the benefit of receiving rainfall during both the South West and North East Monsoon periods. While the normal rainfall of the District for the South West Monsoon period is 438.00 mm that for North East Monsoon period is 396.00 mm. The rainfall received during the Winter Period and hot weather period is negligible as their respective normals being 12.0 mm and 88.0 mm. The Annual normal rainfall of the District is 934.0 mm.

The rainfall received from the South West Monsoon is more copious compared to North East Monsoon in the Western Mandals and in the Central part of the District, where as the rainfall received from North East Monsoon is comparatively copious in the eastern Mandals of the District.

GROUNDNUT IS GENERALLY GROWN AS A KHARIF CROP

Oil is edible and extensively used as a cooking medium, both as refined oil and vanaspati. It is also used in soap making, manufacturing of cosmetics and lubricants. Groundnut kernels are also eaten raw, roasted or sweetened. They are rich in protein and vitamins A, B and some members of the B2 group. Their calorific value is 349 per 100 gm.

GROUNDNUT CULTIVATION

As a kharif crop, after one set of rains in May-June, the field is ploughed twice and the soil is pulverized well to obtain a good tilt. The third ploughing may be done just before sowing. Harrows or tillers can be used for cultivation.

DISTRIBUTION, CULTIVATION AREA AND PRODUCTION

The major groundnut-producing countries of the world are India, China, Nigeria, Senegal, Sudan, Myanmar and the USA. Out of the global groundnut acreage of 18.9 million hectares producing an annual harvest of 17.8 million tonnes, these countries account for 69 per cent of the area cultivated and 70 per cent of the yearly crop. India occupies the second position, both with regard to acreage and production. About 8 million hectares are cultivated annually and the output is about 7.5 million tonnes. Seventy per cent of the area and 75 per cent of India's groundnut output is concentrated in the four states of Gujarat, Andhra Pradesh, Tamil Nadu and Karnataka.

TRENDS IN AREA, PRODUCTION AND PRODUCTIVITY OF GROUNDNUT IN INDIA AND ANDHRA PRADESH

Trends in area, production and productivity of groundnut in India and Andhra Pradesh are presented in Table 1. The Performance of groundnut crop in India and Andhra Pradesh was debilitating. In India 6,165 thousand hectares of area is under cultivation and produces 7168 thousand tonnes of the

groundnut during 2008-2009. Its production during 2000-01 was 6410 thousand tons with the yield of 977 kgs per hectare in India. The area under groundnut was declined from 6559 thousand tonnes in 2000-01 to 4965 thousand tonnes in 2012-13. The area under groundnut crop in Andhra Pradesh was fluctuated between 1310 hectares in 2009-2010 and 1874 hectares in 2000-01.It is observed that the area under groundnut was declined in Andhra Pradesh from 1874 hectares to 1392 hectares during 2000-01 to 2013-14. The reasons for the declining trend of groundnut area are mainly change of cropping pattern and low rainfall in the state. During the period 2009-10 the area, production and yield of groundnut was low due to low rainfall.

Table 1 : Area, Production and Yield of Groundnut for Andhra Pradesh and India
Area (lakh hectares), Production ('000 tonnes) and Yield (in kgs/ hectare)

Year	India			Andhra Pradesh		
	Area	Production	Yield	Area	Production	Yield
2000-01	6559	6410	977	1874	2143	1144
2001-02	6238	7028	1127	1691	1250	739
2002-03	5936	4121	694	1470	820	558
2003-04	5987	8127	1357	1494	986	660
2004-05	6640	6774	1020	1841	1640	890
2005-06	6736	7993	1187	1876	1366	728
2006-07	5615	4864	866	1334	743	557
2007-08	6292	9183	1459	1795	2604	1451
2008-09	6165	7168	1163	1766	1554	880
2009-10	5478	5428	991	1301	1006	773
2010-11	5856	8265	1411	1622	1458	899
2011-12	5264	6964	1323	1307	844	646
2012-13	4695	4721	995	1345	1115	829
2013-14	4770	4695	984	1392	1233	890
CGR	-2.09	-0.96	1.13	-1.85	-1.36	0.51
R^2	0.60	0.02	0.05	0.296	0.02	0.01
t- value	4.25	0.56	0.81	2.25	0.56	0.28

Source: Directorate of Economics and Statistics India, Various issues

The area, production and productivity of groundnut in Andhra Pradesh have significant negative trends of 1.85, 1.6 and 0.51 per cent per annum respectively over the study period. Groundnut being an important crop of the state covers majority of the area under oilseeds. The overall performance of groundnut is not encouraging. The productivity growth showed a decreasing trend. Instability in area, production and productivity was also high. The performance of groundnut production in the state was impressive, mainly because of high growth in the area. However yield showed decelerating growth during this period. In the area, production and productivity showed negative growth.

It is observed from table: 2 that area under groundnut crop showed varied growth. Trends in production also showed the similar nature. It was 52.64 million tonnes in 1976-77 and decreased to 47.21 million tonnes in 2012-13 with high instability percentage of 20.22 per cent. There was almost variation with regard to the growth of yield during the period. It was 747 kilograms per hectare in 1976-77 and increased to 995 kilograms per hectare in 2012-13 with instability of 20.02 per cent.

Table 2: Area, production and yield of groundnut crops in various States

States	2012-13			2013-14		
	Area (Million Hectares)	**Production** (Million Hectares)	**Yield per hectare** (Kg/Hectare)	**Area** (Million Hectares)	**Production** (Million Hectares)	**Yield per hectare** (Kg/Hectare)
Gujarat	1.29	0.76	290	1.84	4.92	2670
Andhra Pradesh	1.35	1.12	829	1.39	1.23	890
Tamil Nadu	0.34	0.78	2315	0.34	0.96	2812
Rajasthan	0.40	0.62	1549	0.47	0.91	1943
Karnataka	.059	0.40	671	0.73	0.66	907
Maharashtra	0.27	0.29	1056	0.27	0.33	1217
Madhya Pradesh	0.21	0.31	1515	0.20	0.20	990
Uttar Pradesh	0.09	0.09	1000	0.10	0.09	896
Odisha	0.07	0.08	1231	0.06	0.08	1375
Others	0.13	0.25	-	0.14	0.31	-
All India	4.72	4.70	995	5.53	9.67	1750

The production of groundnut per hectare is high in Tamil Nadu with 2812 kgs per hectare, but it was in third place in total groundnut production during 2013-14. The yield per hectare is low in major groundnut growing states of Andhra Pradesh and Uttar Pradesh. The yield per hectare is very low in Andhra Pradesh (890 kgs per hectare) comparatively with other states.

In India groundnut is a dominant oilseed crop among the nine major oilseeds, accounting for 39 per cent of the oilseed output. Gujarat, Andhra Pradesh, Tamilnadu, Maharashtra and Karnataka are the major producers of groundnut in the country accounting for more than 80 per cent of the production.

Currently India is the largest importer of edible oil in the world and more than 40 per cent of domestic demand is met through imports (Chand et al., 2004). All these factors resulted in stagnation in the domestic groundnut production in recent years, which could partly be attributed to trade liberalization response to WTO obligations.

Area, Production and productivity of Groundnut Crop in Chittoor District

The area, production and productivity of groundnut crop in Chittoor district during 2000-01 to 2013-14 is presented in table 3. The area under groundnut crop in Chittoor district was fluctuated between 87,000 hectares in 2006-2007 and 3, 28,000 hectares in 2005-06. It is observed that the area under groundnut was declined in Chittoor district from 3, 28,000 hectares to 87,000 hectares during 2005-06 to 2006-07.The reason for this declining trend in area under groundnut was mainly inadequate and uneven rainfall in Chittoor district and change of cropping pattern in recent years in irrigated as well as un irrigated areas in all over the district.

Area, Production and Productivity of Groundnut for Chittoor District

Year	Area (000 ha)	Production (000 T)	Productivity (Kg/ha)
2000-01	192	264	2552
2001-02	194	214	3854
2002-03	121	177	3752
2003-04	159	144	2684
2004-05	219	176	2491
2005-06	328	506	3221
2006-07	87	38	438
2007-08	165	227	3500
2008-09	187	139	3428
2009-10	141	95	2703
2010-11	162	211	3680
2011-12	165	-	-
2012-13	154	167	2260
2013-14	152	122	3144
CGR	-1.29	-3.80	-0.35
R^2	0.03	0.072	0.001
t- value	0.64	0.92	0.09

Source: Handbook of District Profile, Chittoor District, Various issues

The area, production and productivity of groundnut in Chittoor have significant negative trends of 1.29, 3.80 and 0.35 per cent per annum respectively over the study period.

Comparative statement of Groundnut production in Andhra Pradesh state and Chittoor district

The table 6 presented the comparative of groundnut production in Andhra Pradesh state in Chittoor district during the year 2000-01 to 2013-14. The production of groundnut in Andhra Pradesh was 26, 04,000 tonnes (high) in 2007-08 and 7, 43,000 tonnes (low) in 2006-07. And Chittoor district the production of groundnut was 506000 tonnes (high) in 2005-06 and 38,000 tonnes (low) in 2006-07. The share of groundnut production in Chittoor district to the total groundnut production of Andhra Pradesh different from 5.11 per cent in 2006-07 and 37.04 per cent in 2005-06.

Comparative statement of Groundnut production in Andhra Pradesh state and Chittoor district 2000-01 to 2013-14

(in 000tonnes)

Year	Andhra Pradesh	Chittoor	Percentage Chittoor/A.P
2000-01	2143	264	12.13
2001-02	1250	214	17.12
2002-03	820	177	21.58
2003-04	986	144	14.60
2004-05	1640	176	10.73
2005-06	1366	506	37.04
2006-07	743	38	5.11
2007-08	2604	227	8.71
2008-09	1554	139	8.94
2009-10	1006	95	9.44
2010-11	1458	211	14.47
2011-12	844	-	-
2012-13	1115	167	14.97
2013-14	1233	122	9.89

CONCLUSION

Especially in drought prone district of Chittoor, the farmers are mainly depends on groundnut cultivation. Due to lack of irrigation facilities and poor alternative cropping pattern in rain fed areas like Chittoor and in other Rayalaseema districts the farmers have been cultivating groundnut crop from the last several decades. However, the production and area of cultivation shown much variation between 2001-2014. The level of production declined in the year 2012-14, compared to that during 2008-2009. This is due to decrease in production per hectare due to decline in rainfall and helpless among farmers to purchase manures. Hence, the govt agencies, banks and other institutions working in rural areas have to come forward liberally to provide agricultural loans on time, to decrease the burden on farmers, and to increase the production of groundnut.

In Chittoor district of Rayalaseema region in Andhra Pradesh the annual average production of groundnut crop during 2000-01 to 2013-14 was 2480 tons and annual average yield per hectare during the same period was 2900.53 kgs.

REFERENCES

1.GOI (2008) Economic Survey of India 2008, Government of India, New Delhi.
2.GOI (2013-14) Directorate of Economics & Statistics, New Delhi.
3.Patel, G.N., and N.L. Agarwal, (1993), Price Behaviour of Groundnut in Gujarat", Indian Journal of Marketing, Vol.7, No.2, July- December, p.144.
4.B.Madhusudhana,(2013), "A Study on Area, Production and Productivity of Groundnut Crop in India", IOSR, Volume 1, Issue 3 (Sep. – Oct. 2013), PP 01-07.
5.Margaret Digly and Gretton, R.H. (1965), Cooperative Marketing for Agricultural Products, Agricultural Development, Paper No.53, FAO; (Rome Food and Agricultural Organization, pp. 5-17.

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258/34 Raviwar Peth Solapur-413005,Maharashtra
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