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Trends in area, production and productivity of selected oil seed crops in Andhra Pradesh

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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 soybean. Oilseed crops contribute a significant proportion to the agricultural GDP. Andhra Pradesh is one of the four major states in the country in area and production of important oilseed crops in India. Groundnut, sesame and sunflower and non-edible oilseed crop such as castor are the major oilseed crops grown in the state. The state share was in the total net sown area of the country is 15.7 per cent of the major oilseeds. The total production of major oilseeds was 2.95 lakh tonnes which was 9.93 per cent of the total oilseeds production in the country. In view of the importance of oilseed crops an attempt has been made to study the trends in Area, Production and Productivity of selected oilseed crops in Andhra Pradesh and also Chittoor District of Andhra Pradesh.

Keywords: Agriculture, Oilseeds, Area, Production, Productivity.

1. 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 soybean account for about 80 per cent of area and 87 per cent of production of oilseeds in the country (2010-11).

India ranks first in the production of groundnut, second in rapeseed-mustard, and fifth in soybean. Oilseed crops contribute a significant proportion to the agricultural GDP. However Indian oilseed yields are among the lowest in the world, as the majority is grown on non-irrigated marginal land with low quality seed. The yields per hectare in kilograms of different oilseeds are groundnut 913, Soybean 1008, rapeseed-mustard 875 and linseed 344. However the productivity has been less than 2/3rd of the world's average productivity. (ibid p: 1)

India is one of the largest producers of oilseeds in the world. However, 50 per cent of its domestic requirements are met through imports, out of which crude palm oil and RBD palmolein constitute about 77 per cent and soyabean oil constitutes about 12 per cent. Import dependence was about 3 per cent during 1992-93. The production of oilseeds, though it has increased in recent years (from 184.40 lakh tons in 2000-1 to 297.99 lakh tons in 2011-12), has not kept pace with the demand for edible oils in India. Imports have helped raise the per capita availability of edible oils which has increased from 5.8 kg in 1992-93 increased to 14.5kg in 2010-11.

India is the only country in the world having largest number of commercial varieties of oilseed viz, groundnut, rapeseed-mustard, sesame, sunflower, castor, safflower, niger, soyabean, cotton seed, linseed and a number of other oilseeds of tree origin.

The major oilseed crops growing in the country are groundnut, rapeseed-mustard, soyabean, sunflower, sesame and castor. In 2009-10 the area under nine oilseed crops was 26.11 Million hectares with production of 29.5 Metric tonnes, and the total edible oils production in the country stood at 6.17 Metric tonnes. Groundnut ranks first contributing 32.4 per cent of the total output followed by soyabean 31.1 per cent, rapeseed-mustard 24.5 per cent, sesame 8 per cent and other five oilseeds crops by 12 per cent.

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All India area, production and yield of nine oilseeds crops are in 1980-81 was just 10.73 million hectares, which rose to 23.69 million hectares in 2011-12, registering an annual compound growth rate of 1.49 per cent per annum. The production of these oilseeds rose from 5.16 million tonnes to 29.8 million tonnes during the same period showing an impressive growth rate of 3.36 per cent per annum. The average yield registered a growth rate of 1.6 per cent per annum increasing from 481 kg/ha to 1067 kg/ha during the same period.

The major oilseed crops grown in the states, in terms of country's total oilseeds area in percentages of contributions are Madhya Pradesh 27.4, Rajasthan 17.6, Maharashtra 13.9, Gujarat 11.9, Andhra Pradesh 7.4, and Karnataka 5.4. In terms of countries total output the share of percentages are , Madhya Pradesh with 25.9 is the major oilseed producing state followed by Rajasthan 19.3, Gujarat 16.9, Maharashtra 15.1, Andhra Pradesh 4.2 , Tamil Nadu 3.6 and Karnataka 3.2 per cent during 2011-12.

Andhra Pradesh is one of the major states in the country in area and production of important edible oilseed crops in India. Groundnut, sesame and sunflower and non-edible oilseed crop such as castor are the major oilseed crops grown in the state. The state share was in the total net sown area of the country is 15.7 per cent of the major oilseeds. The total production of major oilseeds was 2.45 lakh tonnes which was 9.93 per cent of the total oilseeds production in the country.

In view of the importance of oilseed crops an attempt has been made to study the trends in Area, Production and Productivity of selected oilseed crops in Andhra Pradesh and also in Chittoor District of Andhra Pradesh.

2. Results & Discussion

Trends in area, production and productivity of selected oilseed crops in Andhra Pradesh

Andhra Pradesh is one of the important oilseeds producing states in India. However, the major important edible oilseeds growing in the state are groundnut, sesame and sunflower. Groundnut occupies second largest both in area and production.

Table 1: Area, Production and Yield of Groundnut, Sesame, Sunflower and total Oilseeds of Andhra Pradesh during 1996-97 to 2011-2012. [Production :('000 tonnes) Area:(000 Hectares) Yield:(Kg./Hect.)]

Year	Groundnut			Sesame			Sunflower			Total Oilseeds		
	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield
1996-97	2198	2045.5	931	194.7	40	205	291	219	753	2985.7	2396.2	803
1997-98	1834.4	1155.8	630	139.7	15.8	113	384	184	478	2597	1424.1	548
1998-99	1992	2155	1082	159	37	233	330	198	600	2747.3	2465.8	898
1999-2000	1795	1089	607	171	38	222	278	159	572	2566.2	1382.7	539
2000-01	1873.9	2142.9	1144	182.8	37.2	204	197	168	853	2707.5	2510.9	927
2001-02	1690.7	1249.6	739	132.3	26.7	202	267	219	820	2441	1614	661
2002-03	1470	820	558	115	18	157	416	276	663	2315.5	1256.3	543
2003-04	1493.6	986	660	161	43	267	491	333	678	2546.3	1614.1	634
2004-05	1841.4	1639.5	890	210	38	181	476	290	609	2918.4	2209.4	757
2005-06	1876	1366	728	116	29	250	444	298	671	2922	2041	698
2006-07	1334	743	557	114	29	254	446	329	738	2235	1362	609
2007-08	1795	2604	1451	113	27	239	426	437	1026	2657	3390	1276
2008-09	1766	1554.1	880	80	19	238	419	326	778	2599	2189.1	842
2009-10	1301	1006	773	90	20	222	350	270	771	2072	1500	724
2010-11	1622	1458	899	125	26	208	225	156	693	2319	1995.64	861
2011-12	1307	844	646	72	20	278	158	124	785	1945	1264.67	650

Sunflower and sesame are also important oilseeds grown in the state. However the productivity was low compare to national average and other leading producing states. From the table-1, it is clear that the area, production and yield of Groundnut and sesame are decreasing during the study period from 1996-97 to 2011-12. From the table No. 2, also concluded that there is a negative growth is registered under area of all the above said oilseeds crops and are statistically

significant, whereas the yield of groundnut is almost stagnant, the yield of sesame is significant at 1 per cent level and the yield of sunflower is much better than groundnut, and it is statistically significant. In order to know the trends in area, production and productivity of selected oilseeds crops, compound growth rates were computed and are presented in table-2.

Table 2: Growth Rates of Area, Production and Productivity of Selected Oilseed Crops in Andhra Pradesh (during 1996-97 to 2011-12)

Crop	Area		Production		Yield	
	ACGR	t-val	ACGR	t-val	ACGR	t-val
Groundnut	-2.1727	3.297**	-2.1521	1.043	0.0207	0.013
Sesame	-4.8947	4.190**	-2.5662	1.529	2.3284	2.147
Sunflower	-0.5356	-0.283	1.1817	0.613	1.7173	1.911
Total Oilseeds	-1.5629	2.864*	-0.5161	0.313	1.0467	0.822

Note: ** indicates significant at 1 per cent level and * indicates significant at 5 per cent level

Trends in Area, Production and productivity of selected oilseed crops in Chittoor district

The growth rates of productivity of groundnut, sesame and sunflower crops in Chittoor district are presented in table-3.

Table 3: Growth Rates of Area, Production and Productivity of Selected Oilseed Crops in Chittoor District (1998-99 to 2011-12)

Crop	Area		Production		Yield	
	ACGR	t-val	ACGR	t-val	ACGR	t-val
Groundnut	-3.2259	2.174	-2.789	1.166	0.4368	0.251
Sesame	-7.6005	2.00	-2.1342	0.705	5.4663	1.333
Sunflower	5.3181	1.236	5.8956	1.257	0.5776	0.441

From the table table-3, it is noticed that the growth rate of area under groundnut and sesame have been negative at -3.23; -7.60 per cent respectively and are statistically insignificant implying that the area under groundnut and sesame crops has been decreasing year by year. The growth rates of yield of all the above said crops are positive but they are not significant. The growth rates of production of Groundnut, sesame are negative and the growth rate of sunflower is positive but they are not significant, implying that the production of groundnut and sesame are also decreasing year by year.

4. Conclusion

Oilseed crops contribute a significant proportion to the agricultural GDP. However Indian oilseed yields are among the lowest in the world, as the majority is grown on non-irrigated marginal land with low quality seed. The yields per hectare in kilograms of different oilseeds are groundnut 913, Soybean 1008, rapeseed-mustard 875 and linseed 344.

From the analysis, it is clear that the area, production and yield under Groundnut and sesame have been decreasing during the study period from 1996-97 to 2011-12 in Andhra Pradesh. From the table No. 2, it is also concluded that there is a negative growth is registered under area of all the above said oilseeds crops. The yield of groundnut is almost stagnant, but the yield of sesame and sunflower are much better than groundnut.

It is also noticed that the growth rates of area under groundnut and sesame have been negative at -3.23, -7.60 per cent respectively in Chittoor District of Andhra Pradesh, implying that the area under groundnut and sesame crops has been decreasing year by year. The growth rates of yield of all the above said crops are positive, but they are not significant. The growth rates of production of Groundnut, sesame are negative and the growth rate of sunflower is positive but they

are not significant, implying that the production of groundnut and sesame are also decreasing year by year.

The oilseeds crops are cultivated mostly under rainfed conditions in many Districts of Andhra Pradesh. So the yield of oilseeds crops is low when compared to the yield of the crops that is cultivated under irrigated conditions in some of the states in India. Thus irrigation is a policy variable, and there is a large scope to increase the production and yield of oilseeds crops in the districts of Andhra Pradesh as well as the entire country by providing irrigational facilities. So the Government has to look into this and take necessary steps to provide irrigation facilities to farmers so that the production and yield may be increased.

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