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A STUDY ON PRODUCTION AND PRODUCTIVITY OF SUNFLOWER OILSEED IN ANDHRA PRADESH (UNITED)

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ABSTRACT:

Sunflower is a new oilseed crop. But it was grown in India as an ornamental crop since ancient times. Sunflower was cultivated in India as an oilseed crop from 1969. Sunflower is an important oilseed crop of today. It can give large quantity of top quality oil per unit area per unit time. Because of its early maturity, drought resistance and photo- and thermo non-sensitiveness, it can be cultivated in any season viz. Kharif, Rabi and summer throughout India and it could be conveniently fitted in our existing crop rotation. In

the wake of acute shortage of edible oils, this crop arouses much interest. Hence the main objective of this paper is to analyse the productivity of sunflower oilseed in the state of Andhra Pradesh (United).

KEYWORDS: Oilseed; sunflower, drought resistant.

INTRODUCTION

Sunflower is an oilseed crop as well as an ornamental plant. The major sunflower producing countries in the world are Russia, U.S.A., Argentina, Romania, Spain, Yugoslavia, Turkey and South America. In India, sunflower is grown in Andhra Pradesh, Bihar, Karnataka, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal and rest of the states have very negligible area under this crop. Maharashtra and Karnataka are the two major states in sunflower production. Recently the production of sunflower oilseeds in Andhra Pradesh has

increased significantly. The percentage share of area and production of sunflower oilseeds in total area and production of total oilseeds in Andhra Pradesh is shown in Table-1. The table shows that the total cultivable area for oilseeds in the state of Andhra Pradesh has declined to 202451 hectares during 2013-14 from 3329849 hectares during 1991-92 i.e. a decline of 1.6 times, whereas the cultivable area for sunflower oilseeds has also declined to 99570 hectares during 2013-14 from 281887 hectares during 1991-92, i.e. a decline of 2.8 times. At the same time the total production of oilseeds in the state Andhra Pradesh has increased to 3121525 tonnes during 2013-14 from 2482059 tonnes during

1991-92 i.e. an increase of 1.2 times, whereas the total production of sunflower oilseeds has declined to 86595 tonnes during 2013-14 from 201267 tonnes during 1991-92 i.e. a decline of 2.3 times. The percentage share of sunflower oilseeds area in total Oilseeds area is highly fluctuating between 4.9 per cent and 18.9 per cent during the study period. The lowest percentage share of sunflower accounts for 4.9 per cent during 2013-14, whereas it was highest during 2006-07 which accounts 18.9 per cent. But at the same time the percentage share of sunflower oilseeds production is higher than the percentage share of its area. The lowest percentage share of sunflower production in

total Oilseeds production during 2013-14 is 2.8 per cent whereas, it was highest during 2003-04 which accounts 20.6 per cent. On the whole during the study period an average of 12.0 per cent of total cultivable area of sunflower oilseeds has led to an average of 9.5 per cent production of sunflower oilseeds.

To examine the progress of sunflower oil seeds, the year-wise area, production and productivity of sunflower oil seeds is shown in Table-2. The table shows that the total area for sunflower oilseeds on the whole has declined to 99570 Hectares during 2013-14 from 281887 Hectares during 1991-92, whereas its production has also declined to 86595 tonnes during 2013-14 from 201267 tonnes during 1991-92. But the productivity i.e. per hectare yield has increased to 870kgs per Hectare during 2013-14 from 714kgs during 1991-92.

To find out the correlation between area and production; between area and productivity, (per hectare response) and between production and productivity the year-wise indices are calculated and shown in Table-3. The co-efficient of correlation between area and production is positive at 0.9 and is significant at 0.05 percent level (2.074) as the calculated 't' value accounts per 9.62. The co-efficient of correlation between area and yield per hectare is also positive at 0.6 and is significant as the calculated 't' value accounts for 3.45. And correlation co-efficient between production and productivity is highly positive at 0.8 and is significant at 0.05 percent level (2.074) as the calculated 't' value accounts 6.73.

FINDING OF THE STUDY

The following are the main findings of the present study.

- i. The average percentage share of area of sunflower oilseeds is greater than the percentage share of its production in total oilseeds production.
- ii. The compound growth rate of yield per hectare (productivity) is greater than the Cultivable area and production of sunflower oilseeds. And;
- iii. The correlation co-efficient between area and production, between area and yield and between production and productivity is positive and significant during the study period.

Even though the productivity of sunflower oilseeds is increasing and significant there is declining trend of the cultivable area and production of sunflower oilseeds. The main constraints or reasons for this are (i) Erratic rainfall leading to drought and low production (ii) Continuous cropping every year leading to low yields. (iii) Imbalanced crop nutrition. (iv) Poor soil moisture conservation practices. (v) Biotic stresses such as necrosis, alternaria, downy mildew, capitulum borer, etc. (vi) Bird damage when crop is grown in small areas. (vii) Non-availability of quality seeds of early-maturing hybrids. (viii) Late sowing of sunflower after harvest of potato, mustard and rice. (ix) Inadequate marketing support leading to low prices.

Table - 1

**Year- wise share of Area and Production of Sunflower in total oilseeds
in Andhra Pradesh**

Year	Total Oilseeds area (in hectares)	Sunflower Oilseeds area (in hectares)	Percentage share of sunflower oilseeds in total	Total Oilseeds Production (in tonnes)	Production of Sunflower Oilseeds (in tonnes)	Percentage Share of oilseeds in total
1991-92	3329849	281887	8.5	2482059	201267	8.1
1992-93	3146947	309955	9.8	2225999	132041	5.9
1993-94	3241205	389597	12.0	2698283	217400	8.1
1994-95	3296138	402646	12.2	2590019	194075	7.5
1995-96	3136733	392545	12.5	2940588	170364	5.8
1996-97	2868609	291163	10.1	2551196	219245	8.6
1997-98	2785567	384054	13.8	2532592	281127	11.1
1998-99	2753641	329964	12.0	2165945	135701	6.3
1999-00	2777602	277803	10.0	2539567	207796	8.2
2000-01	2887400	197261	6.8	2547212	167828	6.6
2001-02	2556564	267613	10.5	2720428	219397	8.1
2002-03	2433820	416579	17.1	2374601	276207	11.6
2003-04	2664119	490757	18.4	1614773	333265	20.6
2004-05	3033666	476116	15.7	2206245	290245	13.2
2005-06	3040653	444264	14.6	2041603	297556	14.6
2006-07	2361337	445693	18.9	1722236	329437	19.1
2007-08	2782094	425667	15.3	3766109	437643	11.6
2008-09	2728226	418539	15.3	2058505	326182	15.8
2009-10	2223209	350523	15.8	2418350	270089	11.2
2010-11	2471669	225361	9.1	3074068	156170	5.1
2011-12	2728226	157535	5.8	2058505	123565	6.0
2012-13	1997617	142097	7.1	2794893	103448	3.7
2013-14	2024051	99570	4.9	3121525	86595	2.8

Source: 1. Government of Andhra Pradesh, Various issues of Season and Crop Report, Directorate of Economics and Statistics, Hyderabad.
2. Government of Andhra Pradesh, Statistical Abstract, Directorate of Economics and Statistics, Hyderabad.

Table-2
Year -wise Area, Production and Productivity of Sunflower

oilseeds in Andhra Pradesh

Year	Area (in hectares)	Production (in tonnes)	Productivity (Per kg/ha)
1991-92	281887	201267	714
1992-93	309955	132041	426
1993-94	389597	217400	558
1994-95	402646	194075	482
1995-96	392545	170364	434
1996-97	291163	219245	753
1997-98	384054	281127	732
1998-99	329964	135701	612
1999-00	277803	207796	748
2000-01	197261	167828	851
2001-02	267613	219397	820
2001-03	416579	276207	663
2003-04	490757	333265	679
2004-05	476116	290245	610
2005-06	444264	297556	670
2006-07	445693	329437	739
2007-08	425667	437643	1028
2008-09	418539	326182	779
2009-10	350523	270089	771
2010-11	225361	156170	693
2011-12	157535	123565	784
2012-13	142097	103448	728
2013-14	99570	86595	870
CGR	-2.46	-0.45	1.89
't' value	2	0.34	3.39

Source: 1. Government of Andhra Pradesh, Various issues of Season and Crop Report, Directorate of Economics and Statistics, Hyderabad.
2. Government of Andhra Pradesh, Statistical Abstract, Directorate of Economics and Statistics, Hyderabad.

Table-3
Year-wise Indices of Area, Production and Productivity of Sunflower oilseeds in Andhra Pradesh

Year	Indices of area	Indices of production	Indices of productivity
1991-92	100.0	100.0	100.0
1992-93	110.0	65.6	59.7
1993-94	125.7	164.7	131.0
1994-95	103.4	89.3	86.4
1995-96	97.5	87.8	90.0
1996-97	74.2	128.7	173.5
1997-98	131.9	128.2	97.2
1998-99	85.9	48.3	83.6
1999-00	84.2	153.1	122.2
2000-01	71.0	80.8	113.8
2001-02	135.7	130.7	96.4
2001-03	155.7	125.9	80.9
2003-04	117.8	120.7	102.4
2004-05	97.0	87.1	89.8
2005-06	93.3	102.5	109.8
2006-07	100.3	110.7	110.3
2007-08	95.5	132.9	139.1
2008-09	98.3	74.5	75.8
2009-10	83.8	82.8	99.0
2010-11	64.3	57.8	89.9
2011-12	69.9	79.1	113.1
2012-13	90.2	83.7	92.9
2013-14	70.1	83.7	119.5

Source: Compiled from table-2

REFERENCES

1. Das.P.C, (2014), "Oilseed crops of India", Kalyani publishers, New Delhi Pp. 106-110, ISBN 978-93-272-3635-4.
2. Girish Kumar Jha, Suresh Pal V.C. Mathur, Geeta Bisaria, P. Anubukkani, R.R. Burman, S.K.Dubey (2012), "Edible oilseeds supply and demand scenario in India: Implications for policy. Division of Agricultural Economics, Indian Agricultural Research Institute New Delhi-110012.ISBN:978-81-88708-90-1.
3. Anil Kumar Singh, Manibhushan, B.P.Bhatt, K.M Singh & Ashutosh Upaadhaya (2013), "An Analysis of oilseeds and pulses scenario in Eastern India during 2050-51", Journal of Agricultural Science; Vol.5, No.1; Published by Canadian Centre of Science and Education. Page No.241.
4. Reddy B.N.(2009), Crop Diversification with oilseed Crops for maximizing Productivity and Resource Conservation, Indian Journal of Agronomy, Directorate of Oilseeds Research, Rajendra nagar, Hyderabad. P.86.
5. Oilseed and Vegetable Oil Economy of India: Sectoral Policy Issues, IRMA, 1995, (65p) Institute of Rural management, Anand.
6. Komal Singha, Pramod Kumar, Kedar Vishnu (2014), "Problems and Prospets of oilseed production in Karnataka: A study of sunflower crop", research Report: IX/ADRTC/154, agricultural development and rural Trasformation Center, ISEC, Bangolore.
7. V. Balakrishnama Naidu, A. Siva sankar, C. Leelavathi (2014), "Trends in area, Production and Productivity of selected Oilseed crops in Andhra Pradesh", International Journal of multi-disciplinary Research and Development, P. 366.

8. Various Statistical Abstracts of Andhra Pradesh, Directorate of Economics and statistics, Government of Andhra Pradesh & Commissioner of Horticulture Department, Govt. of A.P Andhra Pradesh state Focus Paper-2015, NABARD.



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