

Analysis of Cashew nut production in Kerala State

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Abstract

Cashew is occupying a very important place in Indian economy. The consumption of cashew nuts is increased both in domestic as well as outside the country. Among various nuts such as hazel nuts, almonds etc., cashew nut enjoys a position and it is an unavoidable snack in all important social functions especially in the western countries. In India few states are producing more cashews compared to other states, namely Maharashtra, Andhra Pradesh, Odessa, Kerala, and Tamil Nadu. Cashew cultivation is taken up in small and marginal holdings and as more than 70% of the cashew area is under this category, cashew plays an important role in the development of small and marginal farmers. In this article we are going to analyse the district wise Area, production and productivity of cashew nut in Kerala.

Key words: Area, production and productivity

Introduction

Cashew (*Anacardium occidentale* L.), a tree native of Eastern Brazil, was introduced in India by the Portuguese nearly five centuries ago. In India, cashew was first introduced in Goa, from where it spread to other parts of the country. The consumption of cashew nuts is increased both in domestic as well as outside the country. Among various nuts such as hazel nuts, almonds etc., cashew nut enjoys an important position and it is an unavoidable snack in all important social functions especially in the western countries. Indian Cashew is known world-wide for its excellent quality. India being a leader in cashew production is also world's largest producer, processor and exporter of cashew kernels.

Statement of the problem

Cashew is one of the most important horticulture crops of the country and ranks high among the Agro -Horticultural commodities getting exported from India. Cashew not only earns valuable foreign exchange to our country but also provides sustainable employment opportunities to 1.5 million people in processing and agrarian sector, especially women, thereby contributing

substantially to rural economy. But, in Kerala State now a days the farmers are not cultivating more cashews. Therefore this study to look at the ways to identify the problems connected with cultivating area, production and productivity of cashew nuts in Kerala .The objective of the article is to highlight the growth performance of cashew nut production in the various districts in Kerala during 2005-06 to 2015-16. The secondary data were collected from the Directorate of Cashew and Cocoa Development, Cashew Export Promotion Council Cochin, Cashew hand book Kerala, Facts and figures of Agriculture in Kerala, Department of Agriculture, Thiruvananthapuram, Directorate of Horticulture and Agricultural Statistics Government of Kerala, Department of Economics.

Cashew Production in Kerala

Cashew cultivation is confined to peninsular India. Kerala state stood first in the extent of area under cashew. But with the expansion of area under Rubber, large area under cashew in the Northern District were converted to Rubber plantation, and at present Kerala state stands 5th among other states viz., Karnataka, Maharashtra, Tamilnadu, Andra Pradesh, Orissa and West Bengal(2015-16). There are around 800 registered Cashew nut processing units in Kerala employing around 3 lakh workers of which 95% are women. In Kerala Cashew is cultivating in all the districts. But only few districts are given more importance to cashew production.

Varieties

Cashew Cultivars recommended the following varieties to cultivate in Kerala

BPP-1 : High percentage of perfect flower, 13.2%, fruit set high, yield 17 kg (25 year old plant) per plant, shelling, 27.5% nuts of 5g average weight.

BPP-2 : Yield 19 kg/tree (25 years), shelling 26%, nuts 4g average.

BPP-3,4,5 : are also other good varieties.

Vengurla-1 : Average yield 23 kg/plant at 28 year's age, nut weight 6g, shelling 31%.

Vengurla-2 : Yield 24 kg/plant at 20 year's age, nut weight 4 g, shelling 32%.

Vengurla-3 : Nut weight 9 g.

Vengurla-4,5, VRI-1,2, Ullal-1,2, Anakkayam-1, BLA 39-4, K-22-1, NDR 2-1.

K-22-1 and NDR 2-1 are good export varieties

Importance of Cashew

The cashew apple is very rich in Vitamin C (262mg/100ml of juice) and contains five times more Vitamin C than orange. A glass of cashew apple juice meets an adult individual daily vitamin C (30mg) requirement. The cashew apple is also rich in sugars and contains considerable amount of tannins and minerals, mainly calcium, iron and phosphorous. Furthermore, the fruit has medicinal properties,

it is used for curing scurvy and diarrhoea as it is effective in medicinal properties. It is also effective in preventing cholera. It is applied for neurological pain and rheumatism.

Cashew nut prevents from cancer; it contains low fat content when compared to other nuts and that too in the oleic acid form which is very healthy for heart. They are cholesterol free and the antioxidants present keeps us away from heart diseases, it reducing high blood pressure. Cashew content more calcium and magnesium this will support to our bones and nerves health. Not only that, Cashew offers environmental benefits in the fight to combat deforestation and erosion. Cashew has also become a crop of high economy and attained the status of an export oriented commodity bringing considered foreign exchange to the country.

Area, Production, Productivity of Cashew in Kerala (2005-06 to 2009-10)

S.No	DISTRICTS	2005-06			2006-07			2007-08			2008-09			2009-10		
		Area 000's HA	Production (000's) MT	Productivity kg/ha	Area 000's HA	Production (000's) MT	Productivity kg/ha	Area 000's HA	Production (000's) MT	Productivity kg/ha	Area 000's HA	Production (000's) MT	Productivity kg/ha	Area 000's HA	Production (000's) MT	Productivity kg/ha
1	Thiruvananthapuram	1869	1087	582	1197	582	486	1222	512	419	1024	443	433	1001	403	403
2	Kollam	4271	3003	703	3701	2424	655	3274	1669	510	2989	1340	448	2858	1271	445
3	Pathanamthitta	1048	524	504	1025	458	447	893	303	339	704	253	359	658	254	386
4	Alappuzha	3525	1182	335	2995	978	327	2515	993	395	2150	668	311	2110	814	386
5	Kottayam	638	239	422	589	226	384	581	222	382	554	160	289	404	127	314
6	Idukki	1197	746	623	1240	542	437	1617	588	364	1365	731	536	1237	497	402
7	Eranakulam	1130	507	449	948	438	462	783	350	447	596	241	404	581	218	375
8	Thrissur	3356	1687	503	2419	960	397	2846	1425	501	2441	1049	430	2290	933	407
9	Palakkad	4391	1785	407	5094	1980	389	3442	1571	456	3740	1750	468	3002	1047	349
10	Malappuram	9123	7394	810	7249	5054	697	6178	5411	876	5394	3153	585	4475	2272	508
11	Kozhikode	3368	2200	653	2948	1478	501	2864	1899	663	2222	1124	506	2068	704	340
12	Wayanad	1235	697	564	1349	877	650	1133	534	471	969	318	328	706	494	700
13	Kannur	25066	29252	1167	25191	30786	1222	19366	25715	1328	19372	20757	1071	19377	21595	1114
14	Kasaragod	18068	17925	992	14518	14897	1026	11667	11210	96	9487	10347	1091	8205	5189	632

	Total	78285	68262	872	70463	61680	875	58381	52402	898	53007	42334	799	48972	35818	731		

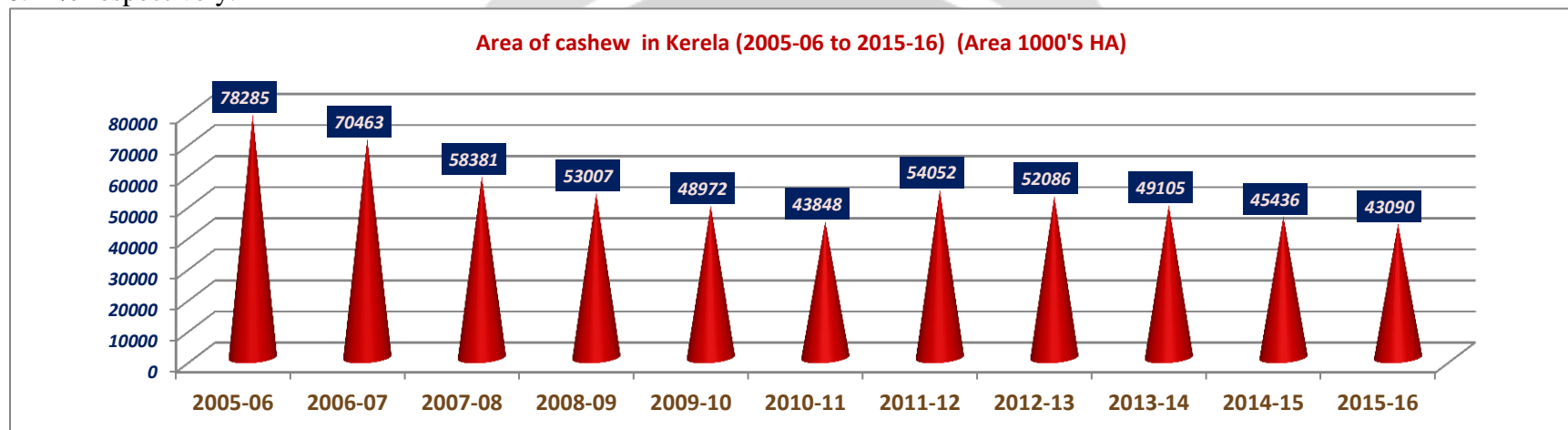
Source: Agricultural statistics, Government of Kerala, Department of Economics

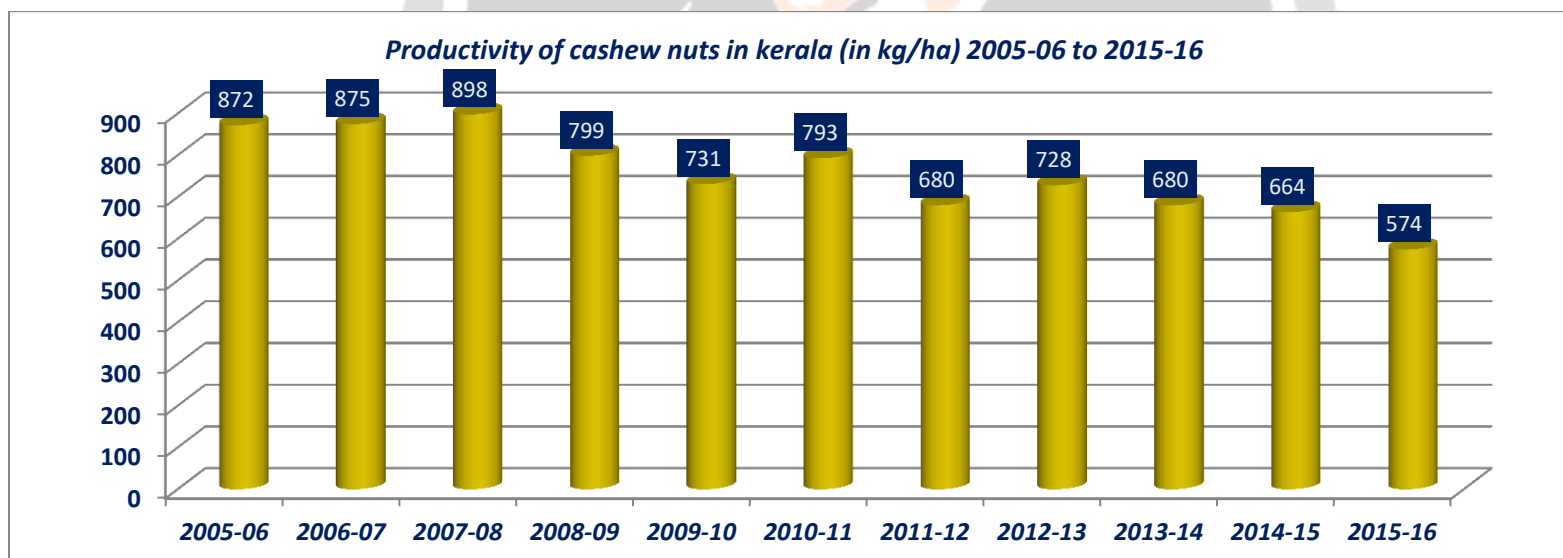
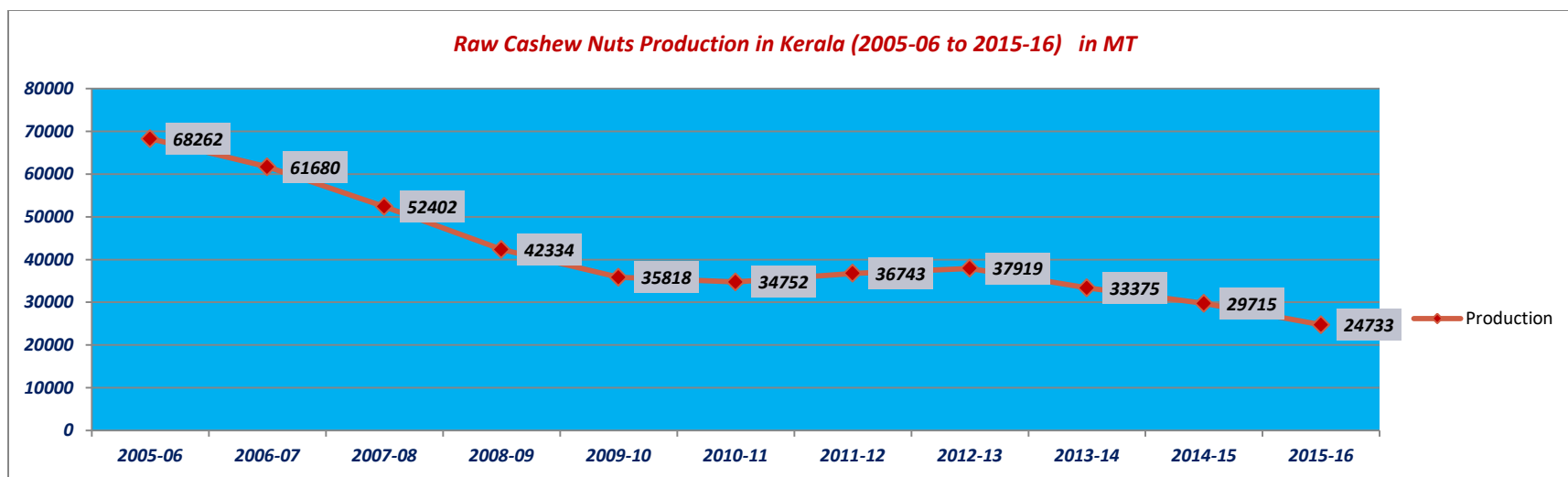
Area, Production, Productivity of Cashew in Kerala (2010-11 to 2015-16)

S. No	DISTRICTS	2010-2011			2011-2012			2012-2013			2013-14			2014-15			2015-16		
		Area 000's HA	Production of Raw cashew nuts in tonnes	Productivity kg/ha	Area 000's HA	Production of Raw cashew nuts in MT	Productivity of Raw cashew nuts kg/ha	Area 000's HA	Production of Raw cashew nuts in MT	Productivity kg/ha	Area 000's HA	Production of Raw cashew nuts in MT	Productivity kg/ha	Area 000's HA	Production of Raw cashew nuts in MT	Productivity kg/ha	Area 000's HA	Production of Raw cashew nuts in MT	Productivity kg/ha
1	Thiruvananthapuram	1068	390	365	1329	4109	309	1460	417	286	1360	370	272	1278	306	239	1213	267	220
2	Kollam	2775	926	334	3352	914	273	3264	883	271	2848	922	324	2680	772	288	2334	644	276
3	Pathanamthitta	597	204	342	621	202	325	532	161	303	475	135	284	455	121	266	447	112	251
4	Alappuzha	2093	493	236	2560	548	214	2110	436	207	2118	433	204	1921	318	166	1805	248	137
5	Kottayam	416	111	267	469	117	249	457	125	274	410	123	300	399	103	258	375	102	272
6	Idukki	1201	342	285	1497	508	339	1537	482	314	1413	530	375	1375	410	298	1147	376	328
7	Eranakulam	574	185	322	648	156	241	604	149	247	557	168	302	430	122	284	433	118	273
8	Thrissur	1953	857	439	2505	692	276	2148	671	312	1892	580	307	1697	426	251	1661	462	278
9	Palakkad	2914	902	310	2702	639	236	3134	615	196	3117	804	258	2353	609	259	2051	406	198
10	Malappuram	3572	1304	365	3826	1625	425	3347	1313	392	2913	930	319	2582	671	260	2313	480	208
11	Kozhikode	1964	882	449	2304	703	305	2179	834	383	2103	937	446	2015	740	367	1981	626	316
12	Wayanad	623	502	806	799	340	426	748	356	476	850	266	313	718	224	312	716	291	406
13	Kannur	17295	22522	1302	23190	24205	1044	22585	26333	1166	21238	20984	988	20351	18570	912	19769	16744	847
14	Kasaragod	6803	5132	754	8250	5684	689	7981	5144	645	7811	6193	793	7182	6323	880	6845	3857	563
	State Total	43848	34752	793	54052	36743	680	52086	37919	728	49105	33375	680	45436	29715	654	43090	24733	574

Source: Agricultural statistics, Government of Kerala, Department of Economics

Analyzing the total area of cashew cultivation in Kerala from 2005-06 to 2015-16 it is seen that cashew cultivation is decreasing year by year. The area under cashew cultivation during 2005-06 is 78,285 Ha where as it was 43,090 Ha in 2015-16, a decrease of 43,090 Ha in this state. Out of 14 districts, Kannur district is occupying first place till today to produce raw cashew nuts. The production of raw cashew nut is high in Kannur district and the contribution to total production during 2005-06 and 2015-16 was 42.85% and 7.69% respectively. Compared to other districts Kottayam district was not given more importance for produce cashew. The contribution of Kottayam district was 0.35% during 2005-06 and 0.41% respectively.





District wise Area under Cashew in Kerala (2005-06 to 2015-16) (Area in 000's)

S. No	Districts	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	DISTRICT TOTAL AREA	PERCENTAGE	RANK
1	Thiruvananthapuram	1869	1197	1222	1024	1001	1068	1329	1460	1360	1278	1213	14021	2.35	X
2	Kollam	4271	3701	3274	2989	2858	2775	3352	3264	2848	2680	2334	34346	5.76	V
3	Pathanamthitta	1048	1025	893	704	658	597	621	532	475	455	447	7455	1.25	XII
4	Alappuzha	3525	2995	2515	2150	2110	2093	2560	2110	2118	1921	1805	25902	4.34	VII
5	Kottayam	638	589	581	554	404	416	469	457	410	399	375	5292	0.89	XIII
6	Idukki	1197	1240	1617	1365	1237	1201	1497	1537	1413	1375	1147	14826	2.49	IX
7	Eranakulam	1130	948	783	596	581	574	648	604	557	430	433	7284	1.22	XIV
8	Thrissur	3356	2419	2846	2441	2290	1953	2505	2148	1892	1697	1661	25218	4.23	VIII
9	Palakkad	4391	5094	3442	3740	3002	2914	2702	3134	3117	2353	2051	34910	5.85	IV
10	Malappuram	9123	7249	6178	5394	4475	3572	3826	3347	2913	2582	2313	50972	8.54	III
11	Kozhikode	3368	2948	2864	2222	2068	1964	2304	2179	2103	2015	1981	26016	4.36	VI
12	Wayanad	1235	1349	1133	969	706	623	799	748	850	718	716	9846	1.65	XI
13	Kannur	25066	25191	19366	19372	19377	17295	23190	22585	21238	20351	19769	233650	39.16	I
14	Kasaragod	18068	14518	11667	9487	8205	6803	8250	7981	7811	7182	6845	106817	17.91	II
	KERALA	78285	70463	58381	53007	48972	43848	54052	52086	48972	43848	43090	596555	100.00	

The above table shows, in Kerala out of 14 districts, the area of cashew cultivation in Kanur district has secured more percentage (39.16%) than the other districts during 2005-06 to 2015-16. Kottayam district has not been allotted more area for cashew cultivation. Because it has a mountainous terrain as well as low-lying areas very close to sea level. Rice is the principal crop extensively cultivated in low-lying regions. And it occupies the first position in the production of rubber in India. Rubber trees provide a stable income for the farmers and climate is ideal for rubber plantations.

Area, Production, Productivity of Cashew in Kerala and India during 2005-06 to 2015-2016

S.No	Year	AREA 000's HA		Production (ooo's) MT		Productivity kg/ha		Percentage of Area	Percentage of production
		KERALA	INDIA	KERALA	INDIA	KERALA	INDIA		
1	2005-06	80	837	67	620	900	815	9.55	10.86
2	2006-07	80	854	72	665	900	820	9.55	10.83
3	2007-08	58.38	868	52.4	665	898	766	6.72	7.88
4	2008-09	53.01	893	42.33	695	799	778	5.93	6.09
5	2009-10	48.97	923	35.82	613	731	664	5.30	5.84
6	2010-11	43.85	945	34.75	653	792	691	4.64	5.32
7	2011-12	54.05	991	36.74	692	680	749	5.45	5.31
8	2012-13	52.08	982	37.91	728	728	741	5.30	5.20
9	2013-14	49.10	1006	33.37	736	680	732	4.88	4.53
10	2014-15	45.44	1027	29.71	725	654	705	4.42	4.10
11	2015-16	43.09	1034	24.73	670	574	648	4.16	3.69

Sources : DES, Cashew Export council of India and DCCD, Cochin

In the year 2005-06, Kerala had an area of 80,000 hectares under cashew cultivation, which declined to 43,090ha during 2015-16. Kerala has contributed 9.55% of cashew cultivated area at India level during 2005 - 2006 and 4.16% in the year 2015-16 .This shows to us the diminishing trend of cashew cultivation in Kerala. The Percentage of cashew production and productivity was also reduced from 2005-06 to 2015-16. Compared to other top cashew producing states, year by year cashew production is slightly reducing in Kerala State and this may be attributed mainly to the replacement of cashew with remunerative crops like rubber in this state.

Causes of reducing cashew production in Kerala

The decline in area is attributed to the pressure on land and the existing land ceiling laws and the continued denial of plantation status to cashew. Besides, the lack of enthusiasm on the part of the implementing agencies, especially the State agriculture department, is said to be a reason for the decline.

On the other hand, Kerala has vast areas of cashew plantations which have not been replanted. As a result, the production has also dropped due to very low productivity per hectare; a major reason for the unpredictability of cashew cultivation is the fact that nearly 70 percent of the cashew trees in the state are aged, local varieties, which start yielding late in the season. Climate change also affects cashew cultivation. Coincidence of excessive rain fall and high relative humidity with flowering may result in flower or fruit drop and heavy incidence of fungal disease.

Shift to more profitable cash crops - mainly rubber - has brought down the area under cashew cultivation in Kerala. Unlike rubber; cashew is not treated as a plantation crop. If it were given plantation status, there would be farmers reverting or switching over to cashew given the unremunerative prices of late of natural rubber, according to a farmer who has shifted to cashew from rubber. The investment in raising a cashew plantation was comparatively much less while the return is remunerative. Because of the pressure on land, wasteland could be used for cashew planting. Not only that due to the absence of high yielding varieties and multiplication techniques, seeds and seedlings were used for plantation development in an unscientific manner. Adequate support from the Government agencies is lacking. Efforts to motivate the farmers to take up cashew cultivation are at a low key. The State Governments' agriculture development activities have given flexibility prioritizing for cashew production. As a result of this change, the industry fears that cashew is not getting adequate priority in the hands of the State Governments.

Conclusion

The demand for cashew nut is always increasing in India and also at world level. Compared to previous years at present in most of the districts especially in Kerala the production of cashew is reducing continuously. The easiest way to overcome the situation is to bring more area under cashew by encouraging farmers to adopt cashew cultivation in their lands and also in homesteads, barren lands under the procession of Government and Public Sector undertaking, and if they are replanted cashew with high-yielding varieties, the production could be enhanced. If it happens in future, definitely Kerala will occupy the top place in production of cashew in India.

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