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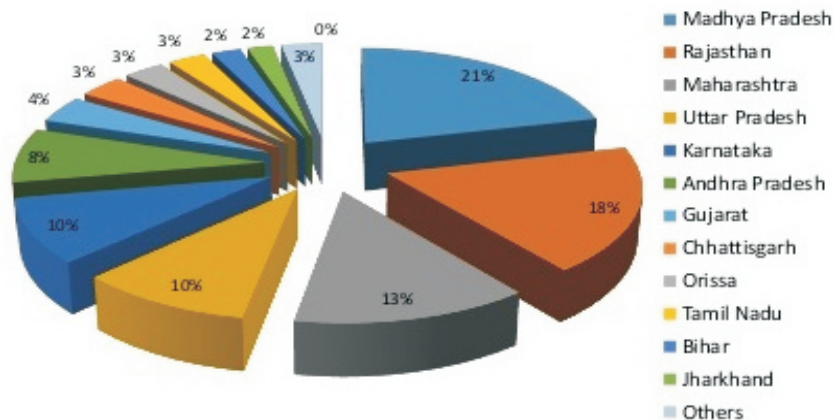
MICRO ANALYSIS ON AREA, PRODUCTION, AND PRICE TREND OF PULSES IN TAMILNADU

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Share of Different States in Pulse Production (2011-12)



Price trend of Pulses in Tamilnadu”.

KEYWORDS: Pulses, Tamilnadu, Red Gram, Micro irrigation, ICAR.

INTRODUCTION:

Pulses are the primary source of protein for the poor and the vegetarians who constitute the majority of Indian population. Pulses, the nourishment vegetables, have been developed by agriculturists since centuries, and these have contributed in giving healthfully adjusted sustenance to the general population of India. India is the biggest maker of heartbeats on the planet, both in amount and assortment. Once a net exporter it is in no time one of the biggest shippers of heartbeats. Beats have been developed since centuries and have been a crucial element of the human eating routine in India. Even "adjusted nourishment" – as characterized more than 1000 years prior – comprised of heartbeats, other than grains, vegetables and natural products, and drain

ABSTRACT

India positions first on the planet as far as heartbeat generation and it is the biggest maker of heartbeats both in amount and assortment. Once a net exporter it is in a matter of seconds one of the biggest shippers of heartbeats. Beats have been developed since centuries and have been an indispensable element of the human eating routine in India. The pigeonpea, dark gram, green gram, lablab bean, moth bean, and stallion gram have originated in India. A vicious circle of low input use and low output, lack of processing and marketing facilities in pulses

gives very low income to the pulse growers. The increasing shortage of pulses, resulted in the need for more and more import which, in turn has dampened the speed of rejuvenation of pulse sub-sector of agriculture sector. So to fulfill the gap on demand and to reduce the imports from other countries the Government is taking continuous effort to improve the inland production of pulses. So there is an urge to assess the current scenario of pulses in Tamilnadu as well as in India. The Growth of Pulses production in Tamilnadu is in positive trend. So an attempt is made to analysis the Area, Production, and

items. Today, nutritionists let us know that heartbeats are imperative since they give the basic proteins. Humankind started as a savage animal groups (and still is), however individuals who needed to abstain from murdering creatures for sustenance, discovered the utility of drain and drain items, and therefore acquired food with proteins of creature root. Indeed, even today, heartbeats and drain give the full supplement of proteins to individuals who abstain from eating meat (Y L Nene 2006). The pigeonpea, dark gram, green gram, lablab bean, moth bean, and stallion gram have certainly started and tamed in the Indian subcontinent, there is a likelihood that chickpea and lentil (Indian sort) were additionally tamed in the Indian subcontinent. Pea, grass pea, and cowpea were presented in India centuries back. Just faba bean was presented in medieval circumstances.

While the traditional cropping pattern almost always included a pulse crop either as a mixed crop or in rotation, the commercialisation of agriculture has encouraged the practice of sole-cropping. Cereal shortages of the mid-sixties and the green revolution accompanied with changes in the infrastructures and incentives including input supplies and price support systems in favour of major cereals altered the traditional cropping pattern against pulses. With decades of emphasis on research as well as production in superior cereals coupled with a near-total neglect of rainfed areas, pulses were driven out of not only the irrigated areas, but also the rainfed farming, and were relegated to the marginal lands. Furthermore, the weak infrastructural support for input supply, credit and marketing in the rainfed areas, the traditional home of pulses, also adversely affected the prospects for pulses. A vicious circle of low input use and low output thus got built in. Lack of processing and marketing facilities in pulses also contributed its share to the woes of pulse growers. The increasing shortage of pulses, resulted in the need for more and more import which, in turn has dampened the speed of rejuvenation of pulse sub-sector of agriculture sector.

IMPORTANCES OF PULSES

Heartbeats are real wellsprings of proteins among the vegans in India, and supplement the staple grains in the eating methodologies with proteins, basic amino acids, vitamins and minerals. They contain 22-24% protein, which is double the protein in wheat and thrice that of rice. Beats give critical dietary and medical advantages, and are known to diminish a few non-transferable infections, for example, colon growth and cardiovascular illnesses. The table 1 clarifies the nutritious estimations of different pulses. The table 2 gives the detail data about the origination of heartbeats.

Table 1 Pulse Crop Nutritional value and Major growing zones

Pulse Crop	Nutritional value Major	Major growing zones
Pigeonpea-Redgram	Protein- 22.3%, Calcium – 73 mg /100 g , Fat–1.7%, Phosphorus-304 mg / 100 g, Minerals–3.5%, Iron–5.8 mg /100 g , Fiber–1.5%, Calorific value – 335, Carbohydrate –57.6% & Moisture13.4%.	CZ (Maharashtra), SZ (Karnataka, Andhra Pradesh), CZ (Madhya Pradesh), NEPZ (Uttar Pradesh) & CZ (Gujarat).
Moongbea-Green gram	Protein–24-25%, Calcium–124 mg / 100 g, Fat–1.3%, Phosphorus-326 mg / 100 g, Minerals–3.5%, Iron–7.3 mg / 100 g, Fiber–4.1%, Calorific value–334, Carbohydrate–56% & Moisture–10%.	CZ (Rajasthan, Maharashtra), SZ (Karnataka, Andhra Pradesh, Odisha), CZ (Gujarat) & SZ (Tamil Nadu).
Urdbean-Blackgram	Protein – 24%, Calcium – 154 mg/100 g, Fat– 1.4%, Phosphorus- 385 mg / 100 g, Minerals–3.2%, Iron–9.1 mg / 100 g, Fiber–0.9%, Calorific value – 347, Carbohydrate– 59.6%, Moisture – 10.9% & it is richest in phosphoric acid among the pulses.	CZ (Madhya Pradesh), NEPZ (Uttar Pradesh), SZ (Andhra Pradesh), CZ (Maharashtra), SZ (Tamil Nadu, Odisha) & CZ (Rajasthan).
Chickpea-Bengalgram	Protein–18-22%, Calcium– 280 mg / 100 g, Carbohydrate – 61-62%, Iron – 12.3mg / 100 g, Fat– 4.5%, Phosphorus – 301mg / 100 g & Calorific value – 396.	CZ (Madhya Pradesh, Rajasthan, Maharashtra), SZ (Karnataka, Andhra Pradesh), NEPZ (Uttar Pradesh), CZ (Chhattisgarh & Gujarat).
Kulthi-Horsegram	Protein–22%, Carbohydrate– 57 %, Phosphorus–311 mg /100 g, Iron – 7 mg/100 g, Calcium–287 mg / 100g & Calorific value–321.	SZ (Karnataka, A.P. & Tamil Nadu), CZ (Maharashtra &

Table 2 Geographical origin and domestication of various pulses grown in India.

Crop	Geographical origin and domestication
Chickpea -Bengal gram (<i>Chana</i>)	Turkey-Syria
Pigeonpea –Redgram (<i>Tur, arhar</i>)	India
Lentil (<i>Masur</i>)- Southwest Asia (Turkey-Cyprus)	Southwest Asia (Turkey-Cyprus)
Black gram (<i>Urd</i>)	Indian subcontinent
Green gram (<i>Mung</i>)	Indian subcontinent
Lablab bean (<i>Sem, vaal</i>)	Indian subcontinent
Moth bean (<i>Moth</i>)	Indian subcontinent
Horse gram (<i>Kulthi</i>)	Indian subcontinent
Pea (<i>Matar</i>)	Southern Europe
Grass pea (<i>Khesari</i>)	Southern Europe
Cowpea (<i>Lobhia, chowli</i>)	West Africa
Faba bean (<i>Baqla</i>)	Faba bean West Asia

CONSTRAINTS IN PULSE PRODUCTION

a. Production constraints

Production of real heartbeats is compelled by both biotic and abiotic stresses. The real limitations to efficiency in pigeonpea are biotic burdens, for example, pod borer, pod fly, Fusarium shrink, and sterility mosaic illness. Also, case borer, aphids, cutworm, fine buildup, rust and wither are the real bugs and illnesses influencing lentil creation in India. The wealth of vegetables in N and P, makes them appealing for bug bugs and illnesses. The majority of the beats in India are developed in low richness, risky soils and unusual natural conditions. More than 87% of the territory under heartbeats is rainfed. Dry spell and warmth stress may decrease seed yields by half, particularly in bone-dry and semi-bone-dry locales. Another significant issue is saltiness and alkalinity of soils which is high both in semi-parched tropics and in the Indo-Gangetic fields. With late changes in the worldwide temperatures the grain yield is probably going to be definitely influenced by temperature limits. Poor waste/water logging amid the blustery season makes substantial misfortunes pigeonpea because of low plant stand and expanded rate of phytophthora scourge malady, especially in the conditions of UP, Bihar, West Bengal, Chhattisgarh, MP and Jharkhand.

b. Socio-economic constraints

Despite the fact that India is the biggest heartbeats maker on the planet, it imports extensive measure of heartbeats from rest of the world. Agriculturists in India regard beats as optional harvests. As of not long ago the administration likewise gave less significance to beats contrasted with the staple grains. When all is said and done ranchers' entrance to information sources is constrained, both in light of low acquiring force and openness to business sectors to offer the overabundance create of heartbeats. In view of this circumstance, the ranchers give first need to staple grains and money crops for apportioning inputs and the second need to beats. Accordingly, beats keep on being developed on poor soils with low data sources. Moreover, there is absence of arrangement support and post-collect developments identified with heartbeat crops. Accessibility of value seed of enhanced assortments and different sources of info is one of the real limitations in expanding the creation of grain vegetables (David et al, 2002).

Importance of the study

Government of India has taken steps to ensure nutritional security to the largely agrarian population of the countries. As more and more people are becoming health cautious, demand of protein is increasing day by day. The projected estimate suggests that by 2020 about 26.5 million tonnes of pulses will be required to fulfil growing demand for human consumption to maintain the present level of availability @ 37 gram per capita per day against @70 gram per capita per day as per world health Organisation recommendation. The output of pulses to be over 17.33 million tonnes where as demand has been estimated as 24 million tonnes by 2017 for

human consumption, seed and other uses indicating gap of about 6-7 million tonnes. India imports about 5-6 million tonnes of pulses every year. The union cabinet approved a long term contract with Mozambique for importing pulses. This arrangement will in force for five years and will be doubled in 2020-21. Further, the pulses demand has been projected to the tune of 26.5 million by 2020 and 39 million tonnes by 2050. So to fulfil the gap on demand and to reduce the imports from other countries the Government is taking continuous effort to improve the inland production of pulses. So there is an urge to assess the current scenario of pulses in Tamilnadu as well as in India. So the study on "Micro Analysis on Area, Production, and Price trend of Pulses in Tamilnadu" is taken up.

AREA AND METHOD OF STUDY

Tamilnadu state is taken as unit for the purpose of the study. The secondary data available in the Department of Economics and Statistics is used for the purpose. To calculate Compound Annual Growth Rate, ten years data is used starting from 2005-06 to 2014-15. The prices for Madurai district from 2011 to 2016 also used in the study. To estimate the future demand the trend analysis is used in the study. The simple percentage, Trend analysis and CAGR are used in the study as statistical tool. The purpose of the study is to analysis the area, production, productivity and prices of major pulses and to lay a road map for future trend and to suggest a suitable plan for the future. The objective of the study of the study is (i) to identify the major variety of pulses in Tamilnadu, (ii) To analyse the production trend of various pulses in Tamilnadu (iii) to find the changes in productivity of pulses in Tamilnadu and (iv) to analyse the price trend, to estimate the future market price and to suggest a suitable plan. The study is analytical and descriptive in nature.

TABLE 3 PULSES AREA IN TAMILNADU 2005-06-2014-15 (Area in Hectare)

Sno	CROPS	Jun-06	Jun-07	Jun-08	Jun-09	Jun-10	Jun-11	Jun-12	Jun-13	Jun-14	Jun-15	Jun-20	CAGR up to 2016
1	Bengal gram	5907	5933	6800	6852	7432	7296	8592	7036	8908	6820	9191	1.45
2	Redgram	37769	29127	30057	27483	26552	35751	35968	42065	59643	72389	75372	6.72
3	Green Gram	136699	134071	158691	138596	138138	171666	164069	118615	195285	229561	226125	5.32
4	Black gram	215448	251014	307515	263671	259722	304432	308263	208625	365128	373782	395617	6.16
5	Horse gram	80415	55635	48448	44749	47231	47320	68969	63505	88733	92062	91606	1.36
6	Total Pulsus	525237	536529	609552	535859	535819	636735	666921	512650	815756	883862	924837	5.34
7	Total cereals	3316637	3166140	3097539	3191384	3034124	3173775	3208669	2647586	3474573	3605693	3347139	0.84
	percentage	16	17	20	17	18	20	21	19	23	25	27	5.37

Source: Season and crop report Department of Economics and Statistics Chennai.

Table 3 explains in detail about the area of major pulses for the last ten years in Tamilnadu. The area of pulses to total cereals has increased from 16 percent in 2005-06 to 25 percent during 2014-15. Its contribution to total cereals is expected to reach 27 percent during the year 2020 as per trend analysis. The area of Bengal gram is slowly increased from 5907 hectares to 8908 hectares and reduced to 6820 hectare during the year 2014-15, and its area during 2020 will be 9191 hectares. The CAGR for Bengal gram is only 1.45 for the last ten years which is low comparing other pulses in Tamilnadu.

The area of Red gram slowly decreased up to 2011-12, thereafter the area of this crop is slowly increased and more than doubled during the year 2014-15. The area of red gram is expected to reach 75372 during 2020 which is 100 percent increase comparing the base year 2005-06. The CAGR for Red gram is 6.72. The area of Green gram slowly increased and it reached 65 percent increase comparing the base year. The CAGR for Green gram

reached 5.32 during the study period. As per the trend analysis the area of Green gram will reach 2,26,125 hectares during the year 2020. The area of Black gram slowly increased and reached 173 percent during 2014-15 to its base year. Its area is expected to reach 3,95,617 hectares during 2020, the CAGR for this crop during the period of study reached 6.16.

The area of Horse gram has decreased slowly up to the year 2012-13, thereafter the area is in increasing trend and reached 92062 hectares during 2014-15. The CAGR for this crop during the study period was only 1.36 which is very low comparing all other pulses in Tamilnadu state. The area of total pulses includes the other pulses like cowpea and lablab etc., The total pulses area increased from 5,25,237 to 8,83,862 hectares. The total pulses area will reach 9,24,837 hectares during the year 2020. The CAGR for total pulses 5.34 during the study period.

The development of short duration varieties has offered scope to bring additional area under pulses during different seasons in Tamilnadu. This has reflected in the study area and the area of cultivation of pulses in the last ten years has increased tremendously. The initiatives taken by the Government via Improvement of Pulses Scheme has doubled the area of red gram cultivation. Improvement of Pulses Scheme has made awareness among the farmers and the traditional method of cultivation of direct sowing and mixed crop are foregone and the single crop cultivation on irrigated area was followed by the farmers. The farmers were encouraged to make nurseries and to adopt transplantation technique in red gram cultivation. This has increased the area of cultivation of pulses in Tamilnadu.

Table 4 PULSUS PRODUCTION IN TAMILNADU 2005-06-2014-15 (Production in Tonnes)

Sno	CROPS	Jun-06	Jun-07	Jun-08	Jun-09	Jun-10	Jun-11	Jun-12	Jun-13	Jun-14	Jun-15	Jun-20	CAGR up to 2016
1	Bengal gram	4007	3831	4587	4363	4542	4937	5520	4530	5823	4177	5555	5.37
2	Redgram	20400	21334	21077	16703	20274	23671	31292	33105	57666	90950	90170	16.92
3	Green Gram	45881	77404	46213	31336	47673	57683	85118	33674	151400	180726	179998	14.69
4	Black gram	70758	143055	79980	82983	98712	123011	178816	88706	310658	358895	384106	17.63
5	Horse gram	22023	32549	21339	21052	21816	21729	37181	25455	56289	68304	69532	11.98
6	Total Pulsus	177003	290503	184924	167370	204369	245190	369263	212574	613799	766964	793450	15.79
7	Tota cereals	6116145	8262753	6581639	7101735	7504548	7594120	10151745	5605436	11002493	12795216	12986674	7.82
Percentage		3	4	3	2	3	3	4	4	6	6	7	8.84

Source: Season and crop report Department of Economics and Statistics Chennai.

Table 4 discuss in detail about the production of major pulses in Tamilnadu for the last ten years. The total pulses production in tamilnadu during the last ten years is increased more than four times comparing the base year 2005-06. These tremendous increase in production of pulses in Tamilnadu has happened due to the adoption of various new technological methods of cultivation like hybrid seeds, fertilizers, adoption of single crop cultivation and nursery cultivation of red gram etc. The CAGR for the pulses cultivation for the last ten years reached 15.79. The production of blackgram has increased more than five times comparing the base year 2005-06, it increased the overall pulses production in Tamilnadu. The redgram production increased more than four times comparing the base year 2005-06.

The CAGR for blackgram production stands first as 17.63% and followed by redgram as 16.92% and the green gram stands third and the bengalgram annual growth rate is very low. The overall pulses production CAGR is 15.79%. The percentage share of the total production to the total cereals production was only 3 percent in the year 2005-06 and its share to the cereals production is doubled during the study period and it is expected to reach 7 percent during the year 2020 as per the trend analysis. It is interesting to note that the CAGR for the cereals production in the period of study stands as 7.82%, at the same time the CAGR for total pulses production

has increased to 15.79% in the same period. This happened to the continuous efforts taken by the Tamilnadu Government in improving the pulses production. The production of pulses during the earlier years starting from 2005-06 to 2012-13 was only up to three percent, thereafter it increased steadily.

Table 5 PULSES YIELD IN TAMILNADU 2005-06-2014-15 (Yield rate in kg/ per hectare)

Sino	CROPS	Jun-06	Jun-07	Jun-08	Jun-09	Jun-10	Jun-11	Jun-12	Jun-13	Jun-14	Jun-15	Jun-20	CAGR up to 2016
1	Bengal gram	678	646	675	637	611	677	643	643	653	645	634	8.84
2	Redgram	540	732	701	608	765	662	870	787	967	1256	1304	8.41
3	Green Gram	336	577	291	226	345	336	519	284	775	786	801	8.87
4	Black gram	328	570	260	315	380	404	580	425	851	960	1026	12.08
5	Horse gram	365	585	440	470	462	459	539	401	641	742	727	7.35
6	Total pulsus	337	541	303	312	381	368	554	415	752	868	905	9.92
7	Tota cereals	1844	2610	2125	2225	2437	2367	3164	2117	3167	3549	3778	6.77
Percentage		18	21	14	14	16	16	18	20	24	24	25	3.34

Source: Season and crop report, Department of Economics and Statistics Chennai.

Table 5 explains the per hectare yield of the pulses in Tamilnadu. The red gram productivity has increased nearly three times (2.92) comparing the base year, the redgram productivity has increased more than two times, the overall pulses productivity in Tamilnadu has increased more than two times during the study period. This increase in productivity has happened because of adoption of micro irrigation technology and cultivation of redgram with drip irrigation under the intensified pulses cultivation programme.

The CAGR for bengalgram is 8.84 and its productivity for the last ten years has ups and downs. It has decreased from 678 kg to 645 kg during the study period. The productivity of redgram has tripled during the period of study and reached 1256 kg, the greengram productivity has increased from 336 to 786 kg, the highest increase has happened in black gram and it reached 960 kg per hectare during the period of study. The total pulses productivity has increased from 337 to 868 kg per hectare. The CAGR for pulses is 6.77 during the study period. According to the trend analysis the pulses yield will be 168 percent increase comparing the base year to the year 2020. Even though the yield per hectare increase is more than doubled it is not reached the world level productivity. The productivity of pulses in 2010 in France is 3850 kg, USA 1850 kg, Canada 1814 kg, China 1583 kg, Turkey 1499 kg, Russian Federation 1398 kg and Myanmar is 1161 kg. The redgram productivity in Tamilnadu reached the above level of Myanmar, so there is an urgent need to improve the per hectare productivity of pulses in Tamilnadu as well as in India. So that we can meet the huge demand of pulses in India and reduce the dependency on imports.

Table 6 Prices of Pulses in Madurai City (per quintal)

	Dec-11	Dec-12	Dec-13	Dec-14	Dec-15	Sep-16	Jan-20
Bengalgram	4400.00	5300.00	4100.00	3600.00	6000.00	9500	8957.0
Redgram	2500.00	4000.00	4000.00	4000.00	8500.00	6800	9904.8
Blackgram	4000.00	4100.00	0.00	6000.00	11000.00	9000	12672.8
Blackgram	3800.00	3800.00	4600.00	6480.00	10500.00	9500	13198.7
Greengram	4300.00	5300.00	6300.00	8500.00	7800.00	6000	9694.3
Redgramdhall	5900.00	6500.00	7000.00	7600.00	16500.00	11500	17184.6
Blackgramdhall	4700.00	5300.00	5200.00	7200.00	11000.00	11000	14486.3
Greengramdhall	5600.00	7500.00	7100.00	10300.00	11000.00	7500	12542.4

The prices of pulses and Gramdhal are discussed in detail in the Table 6. The bengalgram price was doubled during the last five years and it will reach around Rs.9000 during the year 2020. Red gram increased more than three times and it will be Rs. 9900 during the year 2020.The prices of black gram increased from Rs.4000 to Rs 9500 during the study period. The price will reach Rs 13198 during the year 2020, if the same trend continues. The price of green gram slowly increased up to 2014 and slowly decreased thereafter and reached Rs.6000 in 2016.The Green gram price will reach Rs.9694 in the year 2020.The prices of Red gramdhal nearly doubled during the five years. According to the price analysis the price will reach Rs.17184 in 2020.The prices of black gramdhal has increased more than two times from Rs.4700 to 11000 in the year 2016.The price will reach 14486 during the year 2020.The green gramdhal which is used by low income group of Tamilnadu raised from Rs.5600 to Rs.11000 in the year 2016.The trend analysis shows that other things being unchanged the prices of pulses will increase around Rs. 4000 per quintal except Bengal gram.At the same time the prices of Dhall will increase by Rs.5000 per quintal in the year 2020. So there is a need to increase the production and productivity to control the price raise of pulses in Tamilnadu.

Table 7 Pulses Area, Production, Productivity In Tamilnadu from 2004-05 to 2019-20

YEAR	Area in 1000 hectare	Production in 1000 tonnes	Productivity in Kg
2004-05	525	177	337
2005-06	537	291	541
2007-08	610	185	303
2008-09	536	167	312
2009-10	536	204	381
2010-11	637	245	368
2011-12	667	369	554
2012-13	513	213	415
2013-14	816	614	752
2014-15	884	767	868
2019-20	924	793	905

Source: computed by the Author

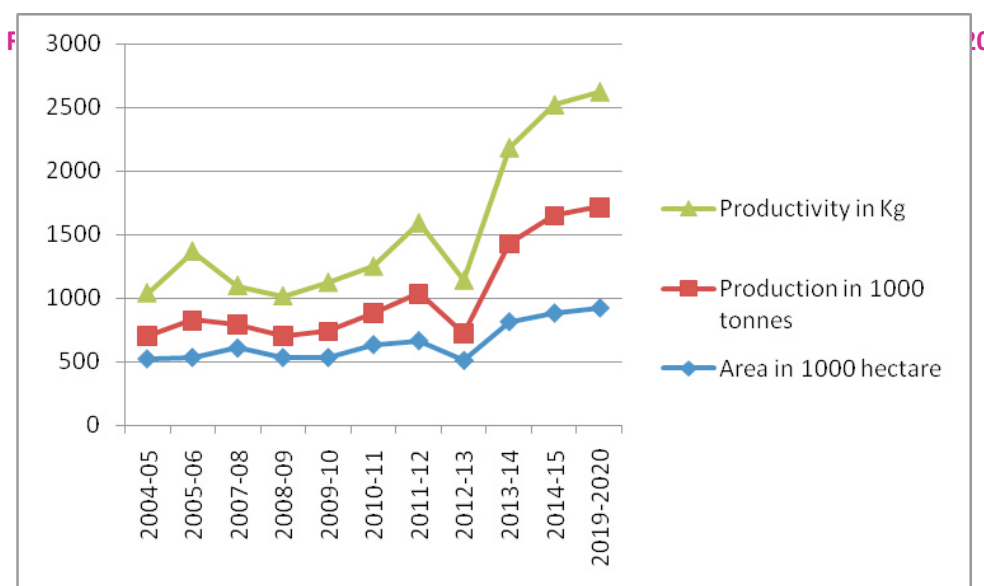


Table 7 and Figure 1 gives the clear picture about the boom of pulses area, production and productivity in Tamilnadu. It seems that during the year 2012-13 the area has decreased and it reflected on the production and productivity.

FINDINGS

The growth of area, production and productivity of the pulses in Tamilnadu is in positive in nature. Intensified pulses cultivation and drip irrigation to red gram, micro irrigation for pulses and single cropping of pulses were improved the production and productivity of pulses in Tamilnadu. The development of short duration varieties has offered scope to bring additional area under pulses during the different seasons in Tamilnadu. This has reflected in the study area and the area of cultivation of pulses in the last ten years has increased tremendously. The initiatives taken by the Government via Improvement of pulses scheme has doubled the area of red gram cultivation. Improvement of Pulses Scheme has made awareness among the farmers and the traditional method of cultivation of direct sowing and mixed crop are foregone and the single crop cultivation on irrigated area was followed by the farmers. The farmers were encouraged to make nurseries and adopt transplantation technique in Red gram cultivation. This has increased the area of cultivation of pulses in Tamilnadu. It is interesting to note that the CAGR for the cereals production in the period of study stands as 7.82 %, at the same time the CAGR for total pulses production has increased to 15.79 % in the same period. This happened to the continuous efforts taken by the Tamilnadu Government in improving the pulses production. The production of pulses during the earlier years starting from 2005-06 to 2012-13 was only up to three percent, thereafter it increased steadily. The red gram productivity has increased nearly three times (2.92) comparing the base year, the overall pulses productivity in Tamilnadu has increased more than two times during the study period. This increase in productivity has happened because of adoption of micro irrigation technology and cultivation of red gram with drip irrigation under the Intensified Pulses Cultivation Programme. Besides ongoing schemes like National Food Security Mission (NFSM), Accelerated pulses production programme (APP), 60,000 Pulses and Oil seeds village, enhancing Breeder Seed Production to promote cultivation of pulses are in operation with funding support from Ministry of Agriculture, Cooperation and Farmers Welfare. Recently the Government of India has made provision of about Rs.500 crores for promotion of pulses by the way of enhancing breeder and quality seed production with a provision to establish 150 seed hubs and large scale demonstration through KVVKs. This has accelerated the area, production, and productivity of pulses in Tamilnadu as well as in India.

SUGGESTION

The need is a managed push to raise household creation of heartbeats as opposed to depending on expanded imports. There is a dire need to overhaul assortments, practices and approach bolster for heartbeats, both open and private part research ought to be empowered and upheld for leap forward in heartbeats Technology at the earliest. An guaranteed and highest MSP to heartbeats is the need of great importance.

CONCLUSION

Tamilnadu Government wanted to expand the territory of development of heartbeats to 11.13 lakh hectares amid 2016-17 which is more than 2.30 lakh hectares of 2014-15. It additionally wanted to build the creation to 9.80 lakhs tones of generation amid 2016-17 (The Hindu 22.7.16) which is more than 2.13 lakhs tones of genuine generation of 2014-15. India needs around 32 million tons of heartbeats by 2030, to sustain the assessed populace of around 1.68 billion. Worldwide supply of heartbeats is restricted, as India happens to be the biggest maker and buyer of heartbeats. Consequently, India needs to create the required amount, additionally stay focused to secure indigenous heartbeats generation. Enhanced advances (enhanced, high yielding assortments and fitting harvest administration practices) are accessible. In any case, a coordinated exertion by agriculturists, specialists, advancement offices, and government are expected to guarantee that

India gets to be distinctly independent in heartbeats in the following 5-10 years. The late endeavors and projects started by the legislature are bearing organic products, and it is trusted that this energy is maintained and reinforced to make India independent in heartbeats. The recently presented "Pradhan Mantri Krishi Sinchai Yojana and Pradhan Mantri Fasal Bima Yojana" of the Government of India have ability to get ocean changes beats development. Assist these two plans can be Game Changer plot for heartbeats producers it small scale water system and ranch input supply can be restricted. With the accessibility of advancements including high yielding assortments created by ICAR and contriving usage of fitting strategies guaranteed supply of value seed and different data sources, profitable MSP, acquisition, interest in formation of required framework for seed/grain support stocks, extra 4-5 tons of heartbeats can be delivered in the following 2-3 years and it will decrease the imports from different nations.

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