

SEASON AND CROP REPORT

2011 - 12

INTRODUCTION

The Union Territory of Puducherry consists of four regions viz. Puducherry, Karaikal, Mahe and Yanam, which are not geographically contiguous. Puducherry region is located in the East Coast bounded by Cuddalore and Villupuram Districts of Tamil Nadu State, while Karaikal region, which is also situated in East Coast, bounded by Nagapattinam and Thiruvarur Districts of Tamil Nadu State. Mahe region is located in the West Coast near Cannanore District of Kerala State and Yanam region is located in the East Godhavari District of Andhra Pradesh State.

The Directorate of Economics and Statistics, Government of Puducherry is declared as the State Agricultural Statistics Authority and the scheme viz " Collection of Agricultural Statistics" is being implemented in Puducherry Region since 1961-62 and in phases this scheme was extended to the other three regions of the Union Territory of Puducherry. The Field Supervisors of this Directorate, are responsible for the collection of field level statistics in the three seasons of an agricultural year. These primary workers visit each and every plot and collect "Land Utilisation Statistics" with the help of village maps supplied by the Revenue Department, Puducherry. The supervisory staff of the Directorate provide able guidance to the primary enumerators in carrying out their work successfully and scientifically.

POPULATION

According to 2011 Population census, the total population of the Union Territory of Puducherry is 12,47,953 persons. Of this 6,12,511 are males and 6,35,442 are females, with a sex ratio of 1037 females to 1000 males. The regional break up figures with density of population is given below.

Region	Population 2011 Census			Density per Sq.Km
	Males	Females	Total	
Puducherry	4,68,258	4,82,031	9,50,289	3,232
Karaikal	97,809	1,02,413	2,00,222	1,275
Mahe	19,143	22,673	41,816	4,846
Yanam	27,301	28,325	55,626	1,854
U.T. of Puducherry	6,12,511	6,35,442	12,47,953	2,547

The rural population is 3,95,200 persons (31.67%) whereas the urban population is 8,52,753 persons which constitutes (68.33%) of the total population. The percentage of rural population was reduced from 33.43% to 31.67% compared to previous census.

The following table reveals the available working force in U.T. of Puducherry as per 2011 Census.

Region	Total workers	Agricultural Workers (Cultivators and Agricultural labourers)	Percentage of Agricultural workers to total workers.	Net area sown (in Hectares) 2011-12	Per-capita Net Area Sown (in Hectare)		Density of Agricultural workers per 100 Hectare of net area sown
					Total Population	Agricultural workers	
Puducherry	3,48,105	47259	13.58	10,741	0.011	0.227	440
Karaikal	68,301	10792	15.80	6,187	0.031	0.573	174
Mahe	11,802	80	0.68	586	0.014	7.325	14
Yanam	16,760	3239	19.33	615	0.011	0.190	527
U.T. of Puducherry	4,44,968	61,370	13.79	18,129	0.015	0.295	339

The total Population of the Union Territory of Puducherry is 12,47,953 and out of this 4,44,968 (35.66%) are classified as workers. Agriculture is the main economic activity of the U.T. of Puducherry and this sector had employed 61,370 persons who are either Cultivators or Agricultural workers. The above table gives the clear picture of workforce of the Territory on Agricultural Sector.

RAINFALL AND SEASONAL CONDITION

The Union Territory of Puducherry receives rainfall both from "South – West monsoon" and "North–East monsoon."

The monsoon period (June to May) is divided into four seasons

- i) South–West monsoon
- ii) North–East monsoon
- iii) Winter period
- iv) Hot weather period.

SOUTH–WEST MONSOON (JUNE 2011 TO SEPTEMBER 2011)

This season's rainfall is vital role as regards to the production of Khariff Crops. Mahe region which is located in the West coast of Kerala State receives its major rainfall during this season. The region –wise rainfall during the above season is given below.

Name of the Region	Number of Rainy days	Total rainfall (in m.m)	Normal rainfall (in m.m)
Puducherry	24	510.0	355.7
Karaikal	10	242.2	261.4
Mahe	95	2737.4	2613.5
Yanam	29	465.0	692.1

It may be noted that Puducherry and Mahe regions have recorded a high level of rainfall while compared to normal rainfall during the season whereas in Karaikal and Yanam regions the rainfall is low as compared to its normal rainfall.

NORTH–EAST MONSOON (OCTOBER 2011 TO DECEMBER 2011)

The region-wise rainfall during the season is shown in the following table:

Name of the Region	Number of Rainy days	Total rain fall (in m.m)	Normal rainfall (in m.m)
Puducherry	29	1146.0	832.0
Karaikal	35	1013.3	1003.0
Mahe	19	464.0	403.1
Yanam	7	211.2	415.3

Puducherry and Mahe regions have recorded a high level of rainfall when compared to its Normal rainfall during the season whereas in Yanam region the rainfall is low as compared to its normal rainfall. But Kakaikal region has recorded meager increase of rainfall as compared to its normal rainfall.

WINTER PERIOD (JANUARY 2012 AND FEBRUARY 2012)

The region – wise rainfall during the winter season is presented in the following table:

Name of the Region	Total Rainy days	Total rainfall (in m.m)	Normal rainfall (in m.m)
Puducherry	0	0.0	54.1
Karaikal	4	31.7	79.5
Mahe	0	0.0	14.1
Yanam	0	0.0	31.2

Karaikal region has recorded low level of rainfall during the winter season while Puducherry, Mahe and Yanam regions have recorded no rain fall when compared to normal rain fall.

HOT-WEATHER PERIOD (MARCH 2012 TO MAY 2012)

The above season's rainfall details are given in the following table.

Name of the Region	Total Rainy days	Total rainfall (in m.m)	Normal rainfall (in m.m)
Puducherry	1	9.0	81.2
Karaikal	3	45.4	91.7
Mahe	5	89.0	313.4
Yanam	2	22.4	75.7

During the above season Puducherry, Karaikal, Mahe and Yanam regions have recorded low levels of rainfall when compared to their normal rainfall.

RAINFALL ABNORMALITIES

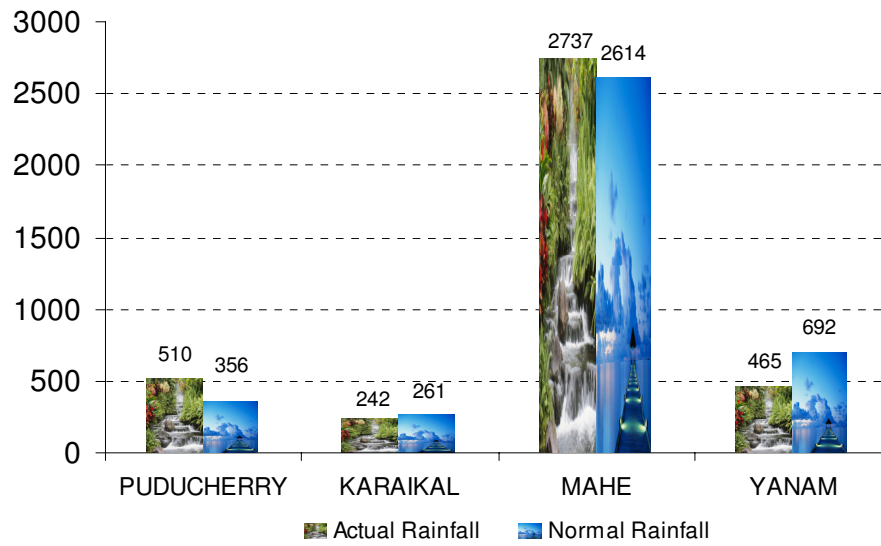
The rainfall abnormalities are classified as follows

- i) Excess (+) 20% and above
- ii) Normal (-) 19.9% to (+) 19.9%
- iii) Deficient (-) 20% to (-) 59.9%
- iv) Scanty (-) 60% to (-) 99.9%
- v) No rain (-) 100%

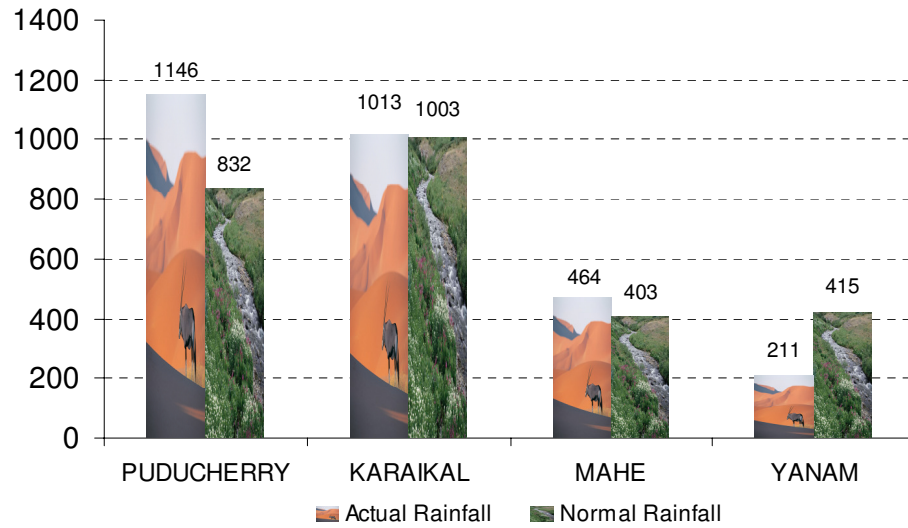
CLASSIFICATION OF AREA

The total geographical area of the Union Territory of Puducherry is 486.51 Sq. Km according to the village paper, which is classified into nine categories (please refer to page No.5).

Rain fall - South West Monsoon - 2011-12



Rain fall - North East Monsoon - 2011-12



The following table gives the nine fold classification of land utilization and the area under each category with its respective percentage to the total geographical area.

Sl.No.	Category	2011 – 12	
		Area in Hectare	Percentage to total Geographical area
1.	Forest	399	0.82
2.	Land put to non – agricultural use	18316	37.65
3.	Barren and un culturable land	72	0.15
4.	Permanent pastures and other grazing land	0	0.00
5.	Land under misc. tree crops and groves	1194	2.45
6.	Culturable waste	4631	9.52
7.	Other fallow land	2062	4.24
8.	Current fallow	3848	7.91
9.	Net area sown	18129	37.26

CONCEPTS AND DEFINITIONS

FOREST

Lands classified as “Forest” under any legal enactment dealing with forests or administered as forests whether, State owned or private. During the year 2011-12, area under this category was 399 hectares(0.82%) of the total geographical area which is declared by the Department of Forest, Government of Puducherry.

LAND PUT TO NON-AGRICULTURAL USE

All lands occupied by Buildings, Paths, Roads, Railways, Rivers, Ponds, Lakes, Canals and other lands put to non-agricultural purposes are brought under this category.

During the year 2011-12, area under this category was 18316 hectares (37.65%) of the total geographical area, which was less than 231 hectares as compared to the previous year 2010–11.

BARREN AND UNCULTURABLE LANDS

Land where cultivation is not at all possible comes under this category. During the year 2011–12, 72 hectares (0.15%) were under this category.

PERMANENT PASTURES AND OTHER GRAZING LANDS

All grazing lands, whether they are permanent pastures or meadows are considered as permanent pastures and other grazing lands according to their nature. No area was recorded under this category during the year 2011-12.

LAND UNDER MISCELLANEOUS TREE CROPS & GROVES

Lands in which trees and groves are grown which are not included in the net area sown come under this category. An area of 1,194 hectares (2.45%) was recorded under this category. This is also a decrease of 5 hectares when compared to last year.

CULTURABLE WASTE

All lands available for cultivation whether not taken up for cultivation or taken up for cultivation once, but not cultivated during the current year and continuously for the last five years or more, in succession for one reason or the other, are classified as culturable waste. During the year 2011-12, 4631 hectares have been recorded under this category, which constitutes 9.52% of the total geographical area. This shows a decrease of 32 hectares when compared to last year.

OTHER FALLOW LANDS

All lands, which are usually taken up for cultivation but are temporarily suspended from cultivation for a period of not less than one year and not more than five years are considered as other fallow lands. During the year 2011-12, 2062 hectares were recorded as area under this category which is 4.24% of the total geographical area.

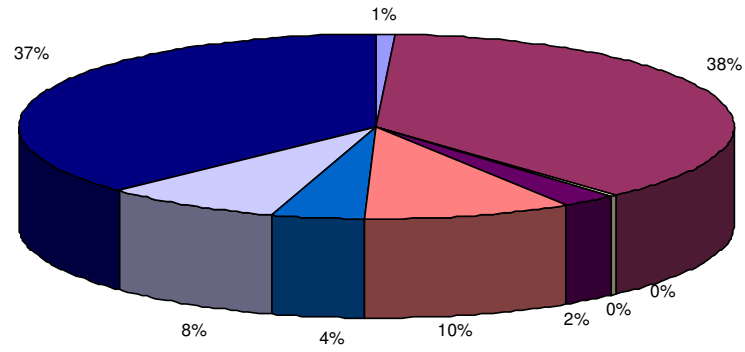
CURRENT FALLOWS

Cultivable lands, which are kept fallow during the entire period under review, are known as current fallows. During 2011-12, this category was recorded as 3848 hectares which is 7.91% .

NET AREA SOWN

Net area sown represents the area sown with crops at least once in any of the crop season of the year, area sown more than once in the same year, will count only once. The net area sown in the current year 2011-12 was 18129 hectares as against 18565 hectares recorded last year(2010-11) representing a fall of 2.35%.

CLASSIFICATION OF AREA (%) 2011-12



- Forests (0.82%)
- Land put to Non-agricultural uses (37.65%)
- Barren and unculturable land (0.15%)
- Permanent pastures and other grazing lands (0%)
- Lands under miscellaneous tree crops and groves not included in net area sown (2.45%)
- Culturable waste (9.52%)
- Other fallow lands (4.24%)
- Current fallows (7.91%)
- Net area sown (37.26%)

The table below represents the region-wise distribution of net area sown to their respective geographical area.

Sl. No.	Region	Percentage of net area sown to	
		Geographical area of the region	Total net area sown in the U.T
1.	Puducherry	36.56	59.25
2.	Karaikal	38.64	34.13
3.	Mahe	67.36	3.23
4.	Yanam	25.72	3.39

The following table shows the region-wise intensity of total cropped area to net area sown.

Sl. No.	Name of the region	Percentage of Net area sown to total cropped area
1.	Puducherry	61.57
2.	Karaikal	72.39
3.	Mahe	99.66
4.	Yanam	68.03

TOTAL CROPPED AREA (GROSS CROPPED AREA)

The Total Cropped area was recorded as 27483 hectares during the year 2011-12 as against 31437 hectares registering a decrease of 12.58% of previous year. The area sown more than once was reported as 9354 hectares during 2011-12 as compared to 12872 hectares during the year 2010-11, showing a decrease of 3518 hectare.

AREA IRRIGATED BY DIFFERENT SOURCES OF IRRIGATION

The Net Area Irrigated by different sources of irrigation during the year 2011-12 was recorded as 15369 hectares. In Puducherry region, 89.01% of the net area sown was irrigated, while in Karaikal region the respective figure is 88.10%. The relevant figures for Mahe and Yanam region was 4.78% and 53.50% respectively.

The following table shows the area irrigated by different sources of irrigation in respect of Union Territory of Puducherry.

Sl. No.	Sources of Irrigation	Net Area Irrigated (in Hect)	Percentage
1	Canal	5761	37.49
2	Tank	0	0
3	Tubewell	9563	62.22
4	Ordinary Well	0	0
5	Other Source	45	0.29
Total		15369	100.00

It may be noted that a total of 5761 hectares in Karaikal & Yanam regions were irrigated through canals and in Puducherry region the main source of irrigation was "Tube Wells".

During the year 2011-12, the Gross area irrigated under different crops was 21840 hectares as against 25472 hectares in 2010-11. Percentage of area irrigated to total cropped area was 79.47% in the Union Territory of Puducherry. It is worth mentioning here that 87.10 % of the total cropped area in Puducherry region alone was irrigated whereas the figures for Karaikal, Mahe and Yanam regions were 71.57%, 5.10% and 55.20% respectively.

The details of the percentage of gross area irrigated under different crops are shown below in respect of Union Territory of Puducherry as a whole.

Paddy	-	75.90%	Sugarcane	-	8.92%
Ragi	-	0.10%	Fruits and Vegetables	-	3.29%
Cumbu	-	0.14%	Condiments and Spices	-	0.05%
Cholam	-	0.01%	Groundnut	-	1.40%
Other Millets	-	0.00%	Other Non- food crops	-	9.05%
Pulses	-	1.14%			

The percentage of area irrigated under principal crops to total area sown under each crop is given in the following table

Name of the crop	Percentage of area irrigated to total area sown under the crops	
	2010-11	2011-12
Paddy	100.00	100.00
Ragi	100.00	100.00
Groundnut	98.80	95.92
Sugarcane	100.00	100.00
Cotton	100.00	100.00

AREA SOWN WITH CROPS (TOTAL CROPPED AREA)

The total cropped area under all crops was 27483 hectares in 2011-12 which is less by 3954 hectares as compared to 2010-11. During the year 2011-12 the area under food crops accounted for 81.13 % and respective percentage of non-food crops is 18.87%.

The cropping pattern in the Union Territory of Puducherry as a whole during 2010-11 and 2011-12 is as below :-

Name of the crop	Percentage of area under principal crops to total cropped area	
	2010-11	2011-12
Food-Crops		
Paddy		60.31
Ragi		0.08
Cumbu		0.11
Other Millets		0.00
Pulses		8.76
Sugarcane		7.09
Other food-crops		4.78
Total Food Crops		81.13
Non-Food Crops		
Cotton		0.03
Groundnut		1.16
Gingelly		0.44
Coconut		7.62
Casuarina		4.95
Other Non-food Crops		4.67
Total Non-Food Crops		18.87

In Puducherry region, food crops were cultivated in 76.50% of the total cropped area whereas in Karaikal region it was 96.64%. In this aspect Mahe and Yanam regions recorded 20.06 % and 63.61 % respectively.

PADDY

Paddy is the principal crop amongst all crops and Paddy was cultivated in an area of 16576 hectares during the year 2011-12 which accounts for 60.31% of the total cropped area. The area under Paddy in 2010-11 was 20014 hectares. Production of Rice during 2011-12 was reported as 42084 tonnes as against 51960 tonnes in 2010-11. The average yield rate of Rice was 2539 Kgs. Per hectare during 2011-12.

Percentage of area under Paddy to the total cropped area in respect of each region of Union Territory of Puducherry can be studied from the following table.

Region	Percentage of area under Paddy to total cropped area
Puducherry	57.26
Karaikal	71.24
Mahe	0.00
Yanam	55.20

Paddy is normally cultivated in wetlands, which are irrigated by different sources of irrigation such as Canals and Tube Wells. Usually Paddy is cultivated during three different seasons in a year. Paddy first crop (Kuruvai) is normally sown during the months of May to July and harvested during September to October. Paddy second crop (Samba), which is predominant, is sown during the period from August to October and harvested during December to February. The sowing season of Paddy third crop (Navarai) is from January to March and is harvested during May to June.

RAGI

Ragi was cultivated in Puducherry region only to an extent of 22 hectares. This crop is mainly sown in dry lands and irrigated by tube wells (Table IV-B).

The production was estimated at 58 tonnes. 0.08% of total cropped area was utilized for Ragi cultivation (Table-IV-B).

CUMBU

Cumbu was cultivated only in Puducherry region to an extent of 31 hectares in 2011-12 and the production is being 80 tones. Cumbu is mainly sown in dry lands for two seasons viz. Khariff and Rabi-II.

OTHER MILLETS

Other Millet such as Cholam was grown in Puducherry region alone to an extent of 1 hectare. The production was estimated at 2 tonnes during the agricultural year under review.

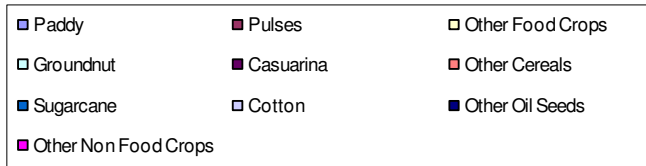
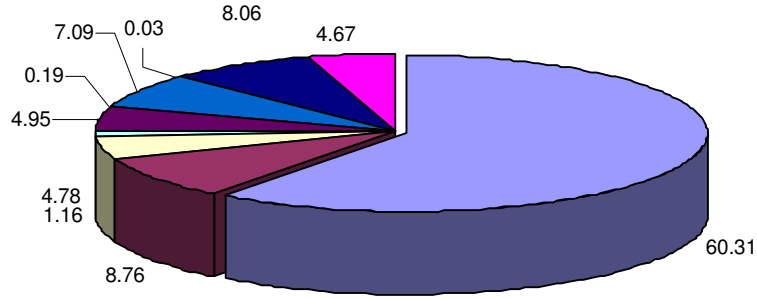
PULSES

Pulses were cultivated in 2406 hectares in the entire Union Territory and the Blackgram and Greengram occupied 1,071 hectares and 1,314 hectares respectively. The production of Blackgram was 571 tonnes and that of Greengram was 483 tonnes respectively.

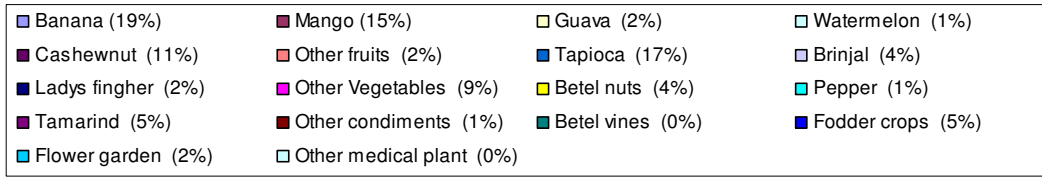
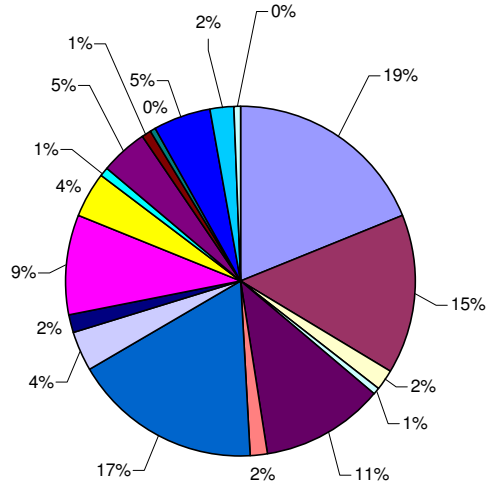
SUGAR CANE

Sugarcane is the major crop among the commercial crops and grown in Puducherry region only. During the year 2011–12 Sugarcane was cultivated in 1,949 hectares. The production of Sugarcane during the year 2011–12 was estimated as 2,87,785 tonnes as against 2,77,683 tonnes during 2010–11, showing an increase of 10,102 tonnes.

CROPPING PATTERN - 2011-12



Horticulture Crops 2011-12



COTTON

Cotton is the only fibre crop grown mainly in Karaikal region. During 2011-12 area under Cotton in total was reported as 8 hectares of which 7 hectares was recorded in Karaikal region. Production of Cotton was 6 tonnes.

GROUNDNUT

Groundnut is one among the leading Oilseeds cultivated in the Union Territory of Puducherry. During the year 2011-12, the cropped area under Groundnut was reported as 319 hectares which is 1.16 % of the total cropped area and the production was estimated at 457 tonnes as compared to 816 tonnes in 2010-11. Groundnut is sown as an irrigated crop during December to February and in July and August of a year.

COCONUT

Coconut is another important oil seed crop, cultivated in 2,095 hectares during 2011-12 of which 1,135 hectares fall in Puducherry region and 470 hectares in Mahe region. It is significant to note that in Mahe, 79.94 % of the total cropped area are occupied by Coconut.

GINGELLY

Gingelly was sown in an area of 122 hectares in 2011-12 as against 131 hectares during 2010-11 with an average yield of 803 kgs. per hectare.

WHOLESALE PRICES OF PRINCIPAL AGRICULTURAL COMMODITIES

AT PUDUCHERRY MARKET

The wholesale prices of some important agricultural commodities are collected every week in Puducherry Market under "Market Intelligence Scheme". The analytical note on the price trend in Puducherry Market is discussed below.

PADDY

The annual average wholesale price of Paddy (I-sort) in Puducherry Market for the year 2011-12 stood at Rs.1,362.69 per quintal and a mixed trend is witnessed during the last five years as may be seen from table -VI at page No.34.

RICE (BOILED – I SORT)

The annual average wholesale price of Boiled Rice (I-sort) was reported as Rs.3,249.79 per quintal during the year 2011-12 and a similar mixed trend as that of Rice was noticed during the last five years.

RAGI AND CUMBU

The annual average wholesale price of Ragi for the year 2011-12 stood at Rs.1,099.86 per quintal as against Rs.1,052.15 in 2010-11 witnessing a mild increasing trend. The annual average wholesale price of Cumbu(T.V) was reported as Rs.1,047.18 per quintal in 2011-12 as against Rs.1,118.33 in 2010-11 registering a decreasing trend.

PULSES

The yearly average wholesale prices of Greengram, Blackgram and Redgram Dhall (I-sort) were registered as Rs.6,366.25, Rs.4,253.51 and Rs.6,389.17 per quintal respectively during 2011-12 as against Rs.6,823.88, Rs.5,017.43 and Rs.6,589.92 per quintal during 2010-11.

CONDIMENTS AND SPICES

The annual average wholesale price of Chillies (sannam) was reported as Rs.9,606.17 per quintal and a increasing trend was witnessed during the last five years. Especially it is good jump when compared to the last year.

ONION

The annual average wholesale price of Onion (Dindugal) which was reported as Rs.1,037.50 per quintal during 2011-12 as against Rs.2,667.92 in 2010-11 registering a mixed trend.

GROUNDNUT (KERNALS) AND GINGELLY SEEDS

The annual average wholesale price of Groundnut (Kernals), was reported as Rs.3,844.70 per quintal in 2010-11 increased to Rs.4,228.28 in 2011-12. The annual average wholesale price of Gingelly seeds which was reported as Rs.3,563.30 in 2010-11 increased to Rs.3,970.56 per quintal in 2011-12 witnessing a increasing trend.

COCONUT

The annual average wholesale price of Coconuts (per 1000 nuts) reported as Rs.6,908.33 in 2011-12.

WAGES PAID TO AGRICULTURAL LABOURERS

Statistics relating to daily wages paid to agricultural and skilled labourers are collected every month from four selected centres at Puducherry region, two selected centres at Karaikal region and one selected centre at Yanam region of the Union Territory of Puducherry. The agricultural labourers are mainly classified into two groups viz.,

- i) Field Labourers and
- ii) Skilled labourers.

Field labourers comprise of Ploughmen, Sowers, Transplanters, Weeders, Reapers and Harvesters. Skilled labourers are Carpenters and Blacksmiths. Data regarding average daily wages paid to agricultural labourers during 2011-12 in Puducherry, Karaikal and Yanam regions are detailed in the tables VII-A, VII- B and VII-C(at page No.38-40). The summary table consists of the average daily wages in respect of Union Territory of Puducherry. The index numbers of agricultural wages are also given in a separate table taking the agricultural year 2007-08 as base year(see page No.23).

The average daily wages paid to each category of labourers have been computed with simple arithmetic mean of the wage rates that prevailed in the seven selected centers on the last working day of every month during the year 2011-12. The base year average of daily wages has been worked out with the simple average of all months of the year 2007-08.

The monthly wage relative computed by expressing the average daily wages paid to each category of Labour during a month of the current year as percentage of the corresponding base year average wage rates.

The index numbers of wages paid are discussed below:

FIELD LABOUR

PLOUGH MEN

The average index number of wages paid to Ploughmen which was reported as 241 for the year 2011-12 as against 340 in 2010-11.

SOWERS AND TRANSPLANTERS

The index number of wages paid to men which were reported to 231 for the year 2011-12, where as for women, the average figure was reported as 183.

WEEDERS

The index number of wages paid to weeders (women) varied from 164 and 194 during 2011-12 the annual average being 181.

REAPERS AND HARVESTERS

The index number of wages paid to Reapers and Harvesters (men) ranged between 113 and 197 and that of woman between 152 and 243.

OTHER AGRICULTURAL LABOURERS

The index number of wages paid to this category (men) slightly increased from 195 in July 2011 to 220 in June 2012. The respective figure for women reported as 264.

SKILLED LABOURERS

The index number for Carpenters ranged between 201 and 254. The same for Blacksmith varied from 171 to 203. The trend for both Carpenter and Blacksmith are in increase.

REVIEW ON AGRICULTURAL INDICES

Agricultural Indices are computed with the base year of triennium ending 2007-08 =100. Index numbers for area under all Crops, Net area sown, Yield, Agriculture production, Cropping intensity, productivity per hectare and Cropping pattern are constructed.

The index of area under all crops shows a mixed trend every year due to unstable cropping pattern followed by ryots and availability of water. In 2011-12 index is 72.56.

The index of net area sown also varied from 96.27 in 2007-08 to 83.88 in 2011-12, showing a revised trend.

The index of yield per hectare crossed the 100 mark for the past three years, which is a good sign of improvement.

The index of agricultural production decreased by 1.87 points from previous year and stood at 89.65 in 2011-12.

The index of cropping intensity shows a downward trend and quoted at 86.51 in the year 2011-12 which is 10.12 points less than the previous year.

The index of cropping pattern increased from 93.88 in 2010-11 to 112.82 in 2011-12.

