



GOVERNMENT OF KERALA

013  
962

Sl no.  
628

**REPORT ON**

**INTEGRATED SAMPLE SURVEY**

**FOR THE YEAR**

**2007-08**

**Prepared by**

**STATISTICAL WING**  
**Directorate of Animal Husbandry**  
**Thiruvananthapuram**



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FOR THE YEAR  
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Prepared by

STATISTICAL WING  
The Institute of Animal Husbandry  
Tarnanagar

## PREFACE

The Integrated Sample Survey for Estimation of Production of Milk, Egg and Meat is being conducted in the State since 1977-78 by the Statistical Cell of the Directorate of Animal Husbandry as per the guidelines issued by the Indian Agricultural Statistics Research Institute, Government of India, New Delhi.

The report contains very relevant data such as estimated number of in milk/milch animals, layer birds, production of milk, egg & meat with their utilisation pattern and many more useful statistics related to the Animal Husbandry Sector. The information and data available from this survey are used as base figures for formulation of development programmes in respect of Animal Husbandry and Dairying sector in the State.

I am grateful to Shri A. P. Harilal, Joint Director (Statistics) under whose leadership the entire survey work was carried out. Thanks are due to Shri T. Suresh Babu, Smt. N. Vilasini and Shri P. R. Muraleendran, Research Officers (Statistics) who prepared this report and to the other staff of Statistics wing who have done the tabulation and consolidation. The earnest service rendered by the field staff and other departmental officers are acknowledged. My sincere thanks to the farmers who co-operated with the survey by providing correct information to the enumerators.

I do hope that this report will be useful to Research Scholars, Planners, Administrators and all those concerned with formulating future policy decisions with regard to Animal Husbandry Sector of the State.

(Sd.)

Thiruvananthapuram,  
17-7-2009.

**Dr. R. Vijayakumar,**  
Director of Animal Husbandry.



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## CHAPTER-I

### Introduction

KERALA is one among the smaller states of India covering a geographical area of 38,863 square kilometers only. It is located between 8° 18' and 12° 48' North Latitude and 74° 52' and 77° 22' East Longitude. The state may be divided in to three geographical regions - Highlands, Lowlands and Midlands. The Highland slope down from the Western Ghats and constitute a natural boundary in the east. Major plantations like Tea, Coffee, Rubber, Cardamom and other spices are grown here. The Lowlands in the coastal area is made up of the river deltas, backwaters and the Arabian Sea shore. The state has a coastal line of length 580 kilometers. Mainly Coconut and Paddy are grown here. The Midlands is made up of undulating hills and villages. It lies between the Highlands and Lowlands. Cashew, Coconut, Tapioca, Banana, Ginger, Pepper and vegetables of different varieties are grown in this area.

The State is divided in to 14 districts. There are 63 Taluks, 152 Block Panchayats, 999 Grama Panchayats, 53 Municipalities and 5 Municipal Corporations in Kerala.

*The various types of soil seen in the state are :*

- (1) The hilly and forest soil in the eastern parts of the state.
- (2) The Sandy soil of the Midland.
- (3) The laterite soil in the Midlands.
- (4) The Black soil seen in Palakkad districts.
- (5) The Peat or Kari soil of Alappuzha districts.
- (6) The Alluvial soil seen some parts of Kottayam, Idukki, Ernakulam and Thrissur districts.
- (7) The Red soil found in the extreme tip of Thiruvananthapuram Taluk.

### Climate and Rainfall

The major sources of rainfall in the State are South West Monsoon (June to September) and the North-East Monsoon (October to September). The normal rainfall in the State is 3097mm. Even though Kerala is very close to the equator, the climate remains more or less moderate, as the seashore is not far away in most parts of the State.

### Population and Sex ratio

According to the 2001 census, the human population in Kerala was 3,18,41,374 of which the female population was 1,63,72,760. The sex ratio indicates 1058 females for 1000 males Kerala had a literacy of 90.92% (excluding children below 6 years) as per the 2001 census.

Some important district wise statistics are given in the following tables

**Table 1.1 : General Information**

Sl. No.	Name of District	No. of Taluks	No. of Block Panchayats	No. of Corporations	No. of Municipalities	No. of Grama Panchayats
1	Thiruvananthapuram	4	12	1	4	78
2	Kollam	5	13	1	2	71
3	Pathanamthitta	5	9	0	3	54
4	Alappuzha	6	12	0	5	73
5	Kottayam	5	11	0	4	75
6	Idukki	4	8	0	1	52
7	Ernakulam	7	15	1	8	88
8	Thrissur	5	17	1	6	92
9	Palakkad	5	13	0	4	91
10	Malappuram	6	14	0	5	102
11	Kozhikode	3	12	1	2	78
12	Wayanad	3	3	1	1	25
13	Kannur	3	9	0	6	81
14	Kasaragode	2	4	0	2	39
<b>State Total</b>		<b>63</b>	<b>152</b>	<b>5</b>	<b>53</b>	<b>999</b>

**Table 1.2 : Human Population (2001 Census) (Provisional)**

<i>Sl. No.</i>	<i>Name of District</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Rural Population (in 000 Nos.)</i>
1	Thiruvananthapuram	1570	1664	3234	2143
2	Kollam	1250	1336	2585	2119
3	Pathanamthitta	589	645	1234	1110
4	Alappuzha	1015	1095	2109	1488
5	Kottayam	965	989	1954	1654
6	Idukki	567	563	1129	1072
7	Ernakulam	1538	1567	3106	1629
8	Thrissur	1422	1552	2974	2135
9	Palakkade	1267	1350	2617	2261
10	Malappuram	1755	1871	3625	3269
11	Kozhikode	1399	1480	2879	1778
12	Wayanad	391	389	781	751
13	Kannur	1153	1256	2409	1196
14	Kasaragode	588	616	1204	970
<b>State Total</b>		<b>15469</b>	<b>16373</b>	<b>31841</b>	<b>23574</b>

*Note* : The total may not tally due to rounding up of the figures.

**Table 1.3 : Classification of Area Under Land Utilisation ( In Hectares)**

Sl. No.	Name of District	Total Geographical Area	Forest Area	Land put on Agricultural use	Permanent pastures & Grazing Lands	Still Water	Water Logged Area	Social Forestry	Net Area Sown	Net Irrigated Area
1	Thiruvananthapuram	218781	49861	23902	8	406	200	26	140881	8058
2	Kollam	248788	81438	23568	0	7105	1523	69	128342	4477
3	Pathanamthitta	265277	155214	14925	0	2668	86	101	82169	5525
4	Alappuzha	141011	...	20857	0	11978	944	13	84479	34709
5	Kottayam	220442	8141	23003	0	6362	233	72	166866	16087
6	Idukki	436328	198413	11256	171	10480	863	1340	208363	16439
7	Emakulam	305826	70617	42354	1	7912	529	1034	159699	28056
8	Thrissur	302919	103619	36355	7	6781	310	9	129350	68550
9	Palakkad	447584	136257	47237	0	10115	37	154	196787	88678
10	Malappuram	355446	103417	38901	8	4205	68	50	185161	24663
11	Kozhikode	234641	41386	25423	0	5037	912	38	156366	7258
12	Wayanad	212966	78787	11673	6	4055	13	25	115454	12230
13	Kannur	297112	48734	26256	0	6127	214	73	198793	23312
14	Kasaragode	199166	5625	26848	15	1598	18	158	136319	49503
	<b>State Total</b>	<b>3886287</b>	<b>1081509</b>	<b>371558</b>	<b>216</b>	<b>84829</b>	<b>5950</b>	<b>3162</b>	<b>2089029</b>	<b>387545</b>

Source:—Directorate of Economics & Statistics

**Table 1.4 : District wise Rain fall (in mm)**

<i>Sl. No.</i>	<i>Name of District</i>	<i>Normal Rainfall (mm) 2006</i>	<i>Normal Rainfall (mm) 2007</i>	<i>Actual Rainfall (mm) 2007</i>
1	Thiruvananthapuram	1923	2051	1783
2	Kollam	2496	2751	2375
3	Pathanamthitta	2840	3251	2698
4	Alappuzha	3000	3095	2859
5	Kottayam	3209	3472	3066
6	Idukki	3770	4455	3642
7	Ernakulam	3578	4045	3435
8	Thrissur	3074	3966	2980
9	Palakkad	2472	3272	2384
10	Malappuram	2850	3542	2761
11	Kozhikode	3671	4700	3566
12	Wayanad	3409	3091	3340
13	Kannur	3374	4090	3310
14	Kasaragode	3613	3843	3549
<b>State Average</b>		<b>3091</b>	<b>3843</b>	<b>3549</b>

*Source :—Meteorological Centre, Thiruvananthapuram.*

## **CHAPTER-II**

### **Animal Husbandry Sector**

The Animal Husbandry Sector plays an important role in strengthening the economy of the State, especially rural economy. It provides Self-employment opportunities to unemployed and underemployed rural poor. The majority of the Livestock population in the State is concentrated in rural areas. The progress in livestock will directly reflect a more balanced development in rural economy and upliftment of weaker sections of the society. A large manpower is also involved in livestock rearing and related activities.

#### **Objectives of Animal Husbandry Department**

The main objectives of the sector is to strengthening the livestock population of the State in terms of both quantity and quality and convert the State into a disease controlled zone by controlling/eradicating animal diseases. Prevention of disease includes control of contagious diseases by systematic vaccination. For that, the department introduces so many schemes such as Rinderpest Eradication Programme, Disease Free Zone Schemes, animal Disease Control Programme etc.

To achieve the aim of increasing milk and meat production, cattle development programmes have been imparted in the State. Among them the most important is crossbreeding activities. Besides, this the department have goat rearing programmes, buffalo rearing programmes, pig and rabbit breeding programmes, poultry development programmes etc. Impart training to farmer on scientific management of production units to enhance production. Training given to women to prepare themselves to take up domestic units of livestock and poultry of manageable size to supplement family income. Provide technical knowledge and relevant information on various schemes implemented in the Animal Husbandry sector with a view to uplift the weaker section of the society. Help the unemployed youth to gain self-employment. Various training offered by the department are dairy farming, goat farming, duck farming, pig farming, broiler production, layer management, backyard poultry production, quail farming, chick sexing etc.

The department is also conducting Integrated Sample Survey for estimation of production of major livestock products viz., milk, egg and meat annually and Quinquennial Livestock Census.

According to 2003 Livestock Census, the Cattle population in the State was 2122 thousands out of which 1735 thousands were Crossbred. The population of Buffaloes and Goats were 65 thousands and 1213 thousands respectively. The Poultry Population in the State is 12216 thousands.

**Live stock Census Data (2003)**  
**Table 2.1 : Live Stock Population (In Numbers)**

Sl. No.	Name of District	Cattle		Buffaloe	Sheep	Goats	Pigs		
		Indigenous	Crossbreed				Cross Breed	Indigenous Total	
1	Thiruvananthapuram	3890	143082	3270	293	146301	919	971	1890
2	Kollam	8058	147019	2821	90	108965	846	140	986
3	Pathanamthitta	5757	108020	865	37	48876	757	234	991
4	Alappuzha	3379	97626	2783	32	49286	863	311	1174
5	Kottayam	5832	132233	2239	73	96982	7572	7902	15474
6	Idukki	23431	143247	4348	161	84790	16022	6892	22914
7	Ernakulam	18114	155182	6822	81	116276	6455	3360	9815
8	Thrissur	18068	140456	10538	161	104597	7271	1217	8488
9	Palakkad	51693	212070	9269	1885	125890	1051	456	1507
10	Malappuram	41652	93051	12341	263	137667	673	126	799
11	Kozhikode	62831	100573	1312	259	57576	1739	834	2573
12	Wayanad	16738	86956	3678	206	41921	3400	284	3684
13	Kannur	38268	121590	1119	36	59981	2473	2395	4868
14	Kasaragode	89471	54166	3213	54	34065	904	385	1289
<b>State Total</b>		<b>387182</b>	<b>1735271</b>	<b>64618</b>	<b>3631</b>	<b>1213173</b>	<b>50945</b>	<b>25507</b>	<b>76452</b>

**Table 2.2 : Poultry Population - 2003 Census (In Numbers)**

<i>Sl. No.</i>	<i>Name of District</i>	<i>Desi Fowls</i>	<i>Improved Fowls</i>	<i>Broiler</i>	<i>Others</i>	<i>Ducks</i>	<i>Total Poultry</i>
1	Thiruvananthapuram	542585	484634	78624	55390	14459	1097068
2	Kollam	337695	352657	14822	31936	72135	794423
3	Pathanamthitta	385095	230730	7724	13608	30763	660196
4	Alappuzha	431863	162334	42662	35529	251132	880858
5	Kottayam	692210	234658	210076	64168	70338	1061374
6	Idukki	264677	148422	19327	12159	11114	436372
7	Ernakulam	673161	318573	793190	171302	63365	1226401
8	Thrissur	818257	373759	797927	64752	49214	1305982
9	Palakkad	947259	185208	79466	27736	33120	1193323
10	Malappuram	1199053	245298	16151	41423	39367	1525141
11	Kozhikode	585831	168972	11985	18940	12057	785800
12	Wayanad	294894	155057	43308	14764	7828	335062
13	Kannur	204495	116375	11912	6364	4040	468755
14	Kasaragode	358696	79384	69828	5250	1677	445007
<b>State Total</b>		<b>7735771</b>	<b>3256061</b>	<b>2197002</b>	<b>563321</b>	<b>660609</b>	<b>12215762</b>



**Table 2.3 : District-wise number of Veterinary Institutions in Kerala during the year ~~2007-08~~, 2007-08**

Sl.No.	Name of District	DVC	VH	VD	VPC	RAIC	MVD	MVH	Total
1	Thiruvananthapuram	1	23	71	2	5	...	1	103
2	Kollam	1	23	54	2	4	..	1	85
3	Pathanamthitta	1	14	42	3	3	..	..	63
4	Alappuzha	1	18	54	6	2	..	1	82
5	Kottayam	1	19	59	4	2	..	1	86
6	Idukki	1	9	46	2	4	1	..	63
7	Ernakulam	1	23	75	5	1	..	1	106
8	Thrissur	1	22	89	6	4	..	..	122
9	Palakkad	1	15	77	4	3	1	..	101
10	Malappuram	1	11	92	4	1	..	..	109
11	Kozhikode	1	13	72	2	1	1	..	90
12	Wayanad	1	6	19	2	1	..	..	29
13	Kannur	1	12	71	5	4	1	..	94
14	Kasaragode	1	6	35	..	2	..	..	44
<b>State Total</b>		<b>14</b>	<b>214</b>	<b>856</b>	<b>47</b>	<b>37</b>	<b>4</b>	<b>5</b>	<b>1177</b>

- DVC - District Veterinary Centre  
 VH - Veterinary Hospital  
 VD - Veterinary Dispensary  
 RAIC - Regional Artificial Insemination Centre  
 MVD - Mobile Veterinary Dispensary  
 MVH - Mobile Veterinary Hospital

**Table 2.4: Animals Treated, Castrations and operations done, Artificial Inseminations performed and Calvings recorded under the auspice of various institutions under the department during 2007-08**

Sl.No.	Name of District	Number of cases treated	Castrations and Operations performed				Artificial Inseminations	Calvings recorded		
			castrations	Obsterical cases	Other operations	Total		Male	Female	Total
1	Thiruvananthapuram	433312	89	21362	13657	35108	109688	19337	12708	32045
2	Kollam	470472	287	29804	11062	341153	114051	20468	19604	40072
3	Pathanamthitta	273338	119	14856	5494	20469	64236	11885	12392	24277
4	Alappuzha	332786	44	21986	5735	27765	58150	7443	8373	15816
5	Kottayam	345643	80	20245	7884	28209	56364	11501	12153	23654
6	Idukki	281571	254	14452	7477	22183	42973	8835	8440	17275
7	Ernakulam	491996	173	26616	8171	34960	71052	13082	12301	25383
8	Thrissur	575613	10	39406	13886	53302	130970	17498	17217	34715
9	Palakkad	386725	1962	34756	17250	53968	131944	17113	16868	33981
10	Malappuram	373813	1494	24347	12756	38597	50333	11242	10437	21679
11	Kozhikode	425050	51	27852	11222	39125	68750	10460	10265	20725
12	Wayanad	159233	76	11410	2627	14113	62850	6030	5728	11758
13	Kannur	296647	62	24480	5544	30086	69935	13338	12934	26272
14	Kasaragode	180699	156	13274	4581	18011	44059	7738	7411	15149
<b>State Total</b>		<b>5026898</b>	<b>4857</b>	<b>324846</b>	<b>127346</b>	<b>457049</b>	<b>1075355</b>	<b>156633</b>	<b>154123</b>	<b>310756</b>

**Table 2.5 : Statement showing achievements in ICDP's during 2007-08**

Sl. No.	Name of ICDP	Number of ICDP sub centre	No. of AI done	No. of animals treated for pregnancy	Number of animals conceived	Recorded calving			Castrations	No. of infertility camps	Vaccinations done		Recorded number of milking animals
						Male	Female	Total			Livestock	Poultry	
1	Thiruvananthapuram	145	71728	45797	33138	9835	9502	19337	---	31	22881	6694	11494
2	Kottarakkara	145	66617	41334	33811	11353	10810	22163	---	17	174071	273599	28087
3	Pathanamthitta	94	33726	25780	14926	5963	5835	11798	116	22	8403	35221	2449
4	Kattappana	85	29513	20880	21016	3130	4018	7148	0	10	1993	26105	38701
5	Aluva	207	86083	62276	38335	12809	12766	25575	0	5	311	13943	7690
6	Palakkad	94	54569	40472	26832	8566	8062	16628	393	9	21948	193	2161
7	Kozhikode	204	84294	51874	32842	12351	12354	24705	248	61	15106	6484	2877
8	Kannur	203	70913	51291	32220	13007	12454	25461	40	3	14359	84303	24180
9	Mala	98	41549	29597	18004	4326	3725	8051	175	48	7087	69505	8051
	<b>State Total</b>	<b>1275</b>	<b>538992</b>	<b>368301</b>	<b>251124</b>	<b>81340</b>	<b>79526</b>	<b>160866</b>	<b>972</b>	<b>206</b>	<b>266159</b>	<b>516047</b>	<b>125690</b>

Table 2.6

District-wise and Disease-wise number of outbreak, attacks & death in Kerala during the year 2007-08

Sl.No.	Name of Districts	Foot & Mouth			Anthrax			Black Quarter			Haemorrhagic Septicaemia		
		OB	AT	DT	OB	AT	DT	OB	AT	DT	OB	AT	DT
		1	Thiruvananthapuram	21	385	3	0	0	0	0	0	0	0
2	Kollam	29	214	13	0	0	0	0	0	0	0	0	0
3	Pathanamthitta	12	60	0	0	0	0	0	0	0	0	0	0
4	Alappuzha	11	105	6	0	0	0	0	0	0	0	0	0
5	Kottayam	1	3	0	2	3	3	0	0	0	0	0	0
6	Idukki	8	119	8	0	0	0	0	0	0	0	0	0
7	Ernakulam	22	397	9	2	3	3	0	0	0	1	7	7
8	Thrissur	19	299	9	3	3	2	0	0	0	3	6	6
9	Palakkad	28	42	1	2	3	4	1	0	0	0	0	3
10	Malappuram	9	68	2	0	0	0	0	0	0	0	0	3
11	Kozhikode	8	57	5	2	3	0	0	0	0	0	0	0
12	Wayanad	4	43	3	0	0	0	0	0	0	0	0	0
13	Kannur	0	0	0	1	1	1	0	0	0	1	1	1
14	Kasaragode	0	0	0	0	0	0	0	0	0	0	0	0
<b>State Total</b>		<b>172</b>	<b>1792</b>	<b>59</b>	<b>12</b>	<b>16</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>14</b>	<b>20</b>

Table 2.6 (Contd.)

District-wise and Disease-wise number of outbreak, attacks & death in Kerala during the year 2007-08

Sl.No.	Name of District	Canaine Distemper			Purvo Virus			Ranikhet			Fowl Pox		
		OB	AT	DT	OB	AT	DT	OB	AT	DT	OB	AT	DT
1	Thiruvananthapuram	4	239	47	1	156	45	1	385	124	10	436	50
2	Kollam	2	8	0	1	1	0	8	209	64	14	202	29
3	Pathanamthitta	0	0	0	0	0	0	0	0	0	0	0	0
4	Alappuzha	2	1	1	0	0	0	6	382	148	2	50	0
5	Kottayam	1	3	0	0	0	0	4	33	0	0	0	0
6	Idukki	0	0	0	0	0	0	0	0	0	0	0	0
7	Ernakulam	3	7	4	0	0	0	1	64	18	0	0	0
8	Thrissur	7	7	2	7	8	0	18	557	39	14	168	10
9	Palakkad	18	42	11	16	16	3	0	0	0	3	3	0
10	Malappuram	16	45	13	1	0	0	107	9241	5918	75	1799	97
11	Kozhikode	0	0	0	0	0	0	0	0	0	0	0	0
12	Wayanad	0	0	0	0	0	0	0	0	0	0	0	0
13	Kannur	5	4	4	0	0	0	5	9	0	7	19	0
14	Kasaragode	0	0	0	0	0	0	0	0	0	0	0	0
	<b>State Total</b>	<b>58</b>	<b>356</b>	<b>82</b>	<b>26</b>	<b>181</b>	<b>48</b>	<b>150</b>	<b>10880</b>	<b>6311</b>	<b>125</b>	<b>2677</b>	<b>186</b>

## CHAPTER – III

### ANALYSIS OF INTEGRATED SAMPLE SURVEY RESULTS FOR THE YEAR

The Government implements various development programmes in the Livestock Sector through the Department of Animal Husbandry envisaging both qualitative and quantitative improvement in the sector. The success and impact of such programmes could be assessed to a great extent by conducting Sample Surveys. The Integrated Sample Survey for estimation of major livestock products viz. milk, egg and meat is being conducted in the state regularly since 1977-78.

#### Coverage and Period of Survey

The Survey is conducted in all the district of the state on a seasonal basis. A year is divided into 3 seasons as per the specification below:

Summer Season:	1 <sup>st</sup> March to 30 <sup>th</sup> June
Rainy Season:	1 <sup>st</sup> July to 31 <sup>st</sup> October
Winter Season:	1 <sup>st</sup> November to 28 <sup>th</sup> / 29 <sup>th</sup> February

#### METHODOLOGY

A Stratified multistage random Sampling design is adopted for the sample survey. The primary stage unit of sampling is the Panchayat ward. The secondary stage unit is the households in the selected ward. The animal / bird in the selected households forms the ultimate unit of sampling. The districts form the strata.

A large sample, which comes to 15% of the total number of rural / urban wards in the state is selected at random for complete enumeration. These 15% sample wards are allocated to different districts in proportion to the population as per the latest live stock census. One third of this will be covered in each season. From these wards selected for complete enumeration, 25% wards are again selected for detailed study. Based on the primary data collected from the wards, districtwise estimates are prepared for each season. By pooling district wise estimates, the state level estimates for each season is obtained. The annual estimates are reached at by pooling the three Seasonal estimates.

From the households possessing in milk bovine / goats and laying birds, the households for detailed study are selected in the following pattern:

Milk	(a) Bovine	: 2 clusters of 2 households for the first round; 4 clusters of 2 households for the 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> rounds.
	(b) Goat	: One cluster of 5 households for each of the 4 rounds.
Egg		: 2 clusters of 5 households for the first round and 4 clusters of 5 households each for the 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> rounds.
Meat		: 2 registered slaughterhouses in each round in each ward.

Thus 28 households having in milk bovines and 20 households having in milk goats are selected for collecting the milk-yield data in a season. 70 households having poultry layers are selected for collecting egg - yield data. The milk yield in both morning and evening of the milking animals and eggs laid by all the poultry layers during the 24 hours prior to the enumerators visiting there are collected. The number of birds slaughtered in the households and the quantity of meat produced are also collected. The meat production from the broiler farms is also being accounted for the estimates of annual meat production in the state.

## Machinery in the Survey

The sample survey is conducted under the administrative control of the Director of Animal Husbandry. The Joint Director (Statistics), attached to the Directorate of Animal Husbandry is in overall charge of the survey. The details of staff position under the scheme is given below :

Sl.No.	Designation	Scale of Pay	Number
<b>A. At Headquarters</b>			
1.	Joint Director	16650 - 23200	1
2.	Research Officer	11070 - 18450	2
3.	U.D. Compiler	6680 - 10790	6
4.	L.D. Compiler	5250 - 7990	3
5.	L.D. Clerk	5250 - 7990	1
6.	Confidential Assistant	7990 - 12930	1
7.	Typist	5250 - 7990	1
8.	Peon	4630 - 7000	2
<b>B. At Field Level</b>			
1.	Field Supervisor/Officer (Selection Grade Livestock Inspector)	10790 - 18000	3
2.	Enumerators (Live Stock Inspector Grade -II)	5930 - 9590	26

The complete enumeration in the selected wards is being done utilizing the part time service of Live Stock Inspectors of the Department of Animal Husbandry. Since they perform this work in addition to their normal duties, they are paid honorarium for the enumeration work. The enumerators who are posted exclusively for the purpose carry out the detailed study. Further one data entry operator each has been posted at the district headquarters.

The three Field Officers/Supervisors are posted with Headquarters at Thiruvananthapuram, Ernakulam and Kozhikode. The Field Officer at Thiruvananthapuram supervises the fieldwork in the four district viz. Thiruvananthapuram, Kollam, Pathanamthitta and Kottayam. The Field Officer attached to the District Animal Husbandry Office, Ernakulam oversees the fieldwork in the four districts viz. Ernakulam, Thrissur, Alappuzha and Idukki. The fieldwork in the remaining six Northern districts is supervised by the field officer wise headquarters at Kozhikode.

The Joint Director (Statistics) and Research Officers conduct statewide Field Inspections to ensure the quality of field data. Besides, the District Animal Husbandry Officers, Deputy Directors and Veterinary Surgeons also do conduct random check of the fieldwork.

### Schedules Prescribed for the Survey

*The various types of schedules used for the survey are listed below:*

1. Village Schedule 1 : General Information relating to the selected Panchayath / Municipality.
2. Village Schedule 2 : Ward wise details of houses and households in the Panchayath / Municipality.

3. Village Schedule 2(A) : Listing of Livestock and Poultry In the households in the selected wards.
4. Schedule LPS 1.1 : Selection of clusters of households for detailed study
5. Schedule LPS 1.2(A) : Yield of milk in sample households and attendant practices
6. Schedule LPS 1.2(B) : Feed consumption by animal on the day of visit
7. Schedule LPS 1.2(C) : Milk yield on the day of visit from each animal
8. Schedule LPS 1.2(D) : Production and disposal of milk and milk products on the day of visit.
9. Schedule LPS 1.2(E) : Utilisation of dung / dropping collected within the premises on the day of visit.
10. Schedule LPS 1.3 : Production purchase, disposal of egg and feed supply and disposal of poultry.
11. Schedule LPS 1.4 : Egg Production and attendant practices in the commercial Poultry farms.
12. Schedule LPS 1.4(A) : Broiler production and attendant practice in the commercial poultry farms.
13. Schedule LPS 2.1(A) : Information on yield of meat from slaughter houses / butcher on the day of visit
14. Schedule LPS 2.1(B) : Details of animals slaughtered on the day of visit.

### **Types of data collected in the Survey**

The detailed information regarding Milk, Egg and Meat Production was collected from the selected households of selected wards.

*The information collected in respect of milk production as follows :*

1. Milk yield of selected animals on the day of visit both morning and evening.
2. Feed consumption of animals on the day of visit.
3. Particulars of animals such as number of lactations completed etc.
4. Productions and utilization of milk products on the previous day of visit.
5. Collection and utilization of dung in the premise.

*The information collected regarding Poultry as follows:*

1. Production, purchase and utilization of eggs during the previous day of visit.
2. Feed supply and disposal of birds.
3. Particulars of desi / improved birds.

*The information collected regarding Meat as follows:*

1. Animals of different species slaughtered in selected slaughterhouses.
2. Details of animals slaughtered.
3. Average quantity of meat obtained per animal of different species.
4. Number of animals slaughtered in the premises of households and sold for slaughter during the last calendar month of the visit.



Table 3.1 : Summary of Results

Sl.No.	Items	Unit	Previous Year (06-07)	Current Year (07-08)	% of Increase or Decrease
<b>MILK</b>					
<b>I Indigenous Cows Population</b>					
(a)	In Milk	00 Nos	1024	1013	-1.07
(b)	Milch	00 Nos	1410	1393	-1.23
<b>Yield Per day</b>					
(c)	In Milk	Kgs	2.630	2.670	1.51
(d)	Milch	Kgs	1.910	1.924	0.72
(e)	Production	000 tonnes	98.268	98.049	-0.22
<b>II Crossbreed Cows Population</b>					
(f)	In Milk	00 Nos	6950	7069	1.71
(g)	Milch	00 Nos	9707	10237	5.46
<b>Yield Per day</b>					
(h)	In Milk	Kgs	7.508	7828	4.26
(i)	Milch	Kgs	5.376	5406	0.55
(j)	Production	000 tonnes	1904.675	2025.343	6.34
<b>III Buffalo Population</b>					
(k)	In Milk	00 Nos	131	123	-6.00
(l)	Milch	00 Nos	183	178	-3.00
<b>Yield Per day</b>					
(m)	In Milk	Kgs	6.254	5.730	-8.38
(n)	Milch	Kgs	4.477	4.209	-5.98
(o)	Production	000 tonnes	28.846	27.346	-5.20
<b>Goat Population</b>					
(p)	In Milk	00 Nos	3903	3903	0.00
(q)	Milch	00 Nos	5984	7334	22.55
<b>Yield Per day</b>					
(r)	In Milk	Kgs	0.604	0.606	0.33
(s)	Milch	Kgs	0.394	0.361	-8.38
(t)	Production	000 tonnes	86.086	96.897	12.56
<b>Total Milk Production</b>		<b>000 tonnes</b>	<b>2118.875</b>	<b>2247.635</b>	<b>6.08</b>

**Table 3.1 (Contd.)**

<i>Sl. No.</i>	<i>Items</i>	<i>Unit</i>	<i>Previous Year (06-07)</i>	<i>Current Year (07-08)</i>	<i>% of Increase or Decrease</i>
<b>EGG</b>					
<b>Layers</b>					
(u)	Desi	00 Nos.	53847	54501	1.20
(v)	Improved	00 Nos.	21591	26207	17.61
(w)	Total	00 Nos.	75438	80708	6.53
<b>Yield Per Layer per Year</b>					
(x)	Desi	Nos.	135	149	10.37
(y)	Improved	Nos.	217	218	0.46
<b>Production</b>					
(z)	Desi	Lakh Nos.	7296	8148.518	11.69
(aa)	Improved	Lakh Nos.	4691	5,643.29	20.30
<b>Total Egg Production</b>		<b>Lakh Nos.</b>	<b>11986.909</b>	<b>13791.808</b>	<b>15.06</b>

**Table 3.2 : Annual Survey Report on Integrated Sample Survey to Estimate Production of Livestock Products**

<i>Sl.No.</i>	<i>Items</i>	<i>Summer</i>	<i>Rainy</i>	<i>Winter</i>	<i>Annual (Overall)</i>
1 (a)	Total No. of Districts	14	14	14	14
(b)	Strata formed for District level estimates	14	14	14	14
2 (a)	Total No. of wards in the state (in habitated)	12302	12302	12302	12302
(b)	No. of wards covered for complete enumeration	615	614	615	1844
(c)	No. of wards covered for detailed study				
(1)	For Milk	140	139	140	419
(2)	For Egg	140	139	140	419
3 (a)	Total No. of households in the state (Estimated in lakhs)	71	71	71	71
(b)	Percentage of households keeping				
(1)	Bovine	15.70	14.43	15.35	15.16
(2)	Poultry	27.30	28.90	30.60	28.93
(3)	Sheep	*	*	*	*
(4)	Goat	10.49	9.75	9.65	9.96
(5)	Pig	1.10	0.66	1.35	1.04
4 (a)	No. of households covered for milk production (Cow, Buffalo and Goat)	4525	4920	4623	14068
(b)	No. of animals observed for milk production				
(1)	Cow In milk	3166	3518	3303	9987
(2)	Buffalo In milk	39	51	42	132
(3)	Goat In milk	1230	1421	1284	3935
5 (a)	No. of households observed for egg production	7412	7665	7388	22465
(b)	No. of layers observed				
(1)	Desi	16539	14792	13402	44733
(2)	Improved	9442	9748	9728	28918
6 (a)	No. of slaughter house in the state	2079	2079	2079	2079
(b)	Estimated No. of animals slaughtered				
(1)	Cattle	181846	174538	179873	536257
(2)	Buffalo	148056	146511	152531	447098
(3)	Goat & Sheep	193931	188472	196154	578557
(4)	Pig	27061	24991	27457	79509

**Table 3.3 : District-wise Number of Ward Selected for Complete enumeration during the year**

<i>Sl. No.</i>	<i>Name of District</i>	<i>Summer</i>	<i>Rainy</i>	<i>Winter</i>	<i>Annual (Overall)</i>
1	Thiruvananthapuram	52	52	52	156
2	Kollam	50	50	50	150
3	Pathanamthitta	32	32	32	96
4	Alappuzha	30	30	30	90
5	Kottayam	46	46	46	138
6	Idukki	50	50	50	150
7	Ernakulam	52	52	52	156
8	Thrissur	49	49	49	147
9	Palakkad	62	62	62	186
10	Malappuram	53	53	53	159
11	Kozhikode	41	41	41	123
12	Wayanad	29	29	29	87
13	Kannur	40	40	40	120
14	Kasaragode	29	29	29	87
<b>State Total</b>		<b>615</b>	<b>615</b>	<b>615</b>	<b>1845</b>

**Milk Production****CLASSIFICATION OF HOUSEHOLDS POSSESSING BOVINES ACCORDING TO THE SIZE OF UNITS IN KERALA DURING THE YEAR 2007-08**

<i>Unit size of Bovines</i>	<i>Percentage of bovine keepers (Households)</i>
0-1	33.42
2-3	56.82
4-5	7.84
6-7	1.28
8-10	0.40
11-15	0.18
16-20	0.06
21 & above	0
Total	100

**NUMBER OF WARDS AND HOUSEHOLDS OBSERVED FOR MILK PRODUCTION IN KERALA DURING THE YEAR 2007-08**

<i>Season</i>	<i>Number of wards covered</i>	<i>No. of households covered</i>
Summer	140	4525
Rainy	139	4920
Winter	140	4623
Total 2007-08	419	14068

During the year under report, detailed study was conducted in 419 selected wards. These wards constituted the sub sample selected from the large sample of 15% of total wards in the state. From the selected wards 14068 households were selected randomly for recording milk yield and to study other attendant practices.

**NUMBER OF INMILK ANIMALS OBSERVED FOR MILK PRODUCTION IN KERALA DURING THE YEAR 2007-08**

<i>Season</i>	<i>Number of animals Observed</i>		
	<i>Cows</i>	<i>Buffaloes</i>	<i>Goats</i>
Summer	3166	39	1230
Rainy	3518	51	1421
Winter	3303	42	1284
Total	9987	132	3935

From 14068 selected households 9987 cows, 132 buffaloes and 3935 goats were observed. The milk yield per animal per day was estimated from these data.

**ESTIMATED NUMBER OF IN MILK AND MILCH ANIMALS IN KERALA  
DURING THE YEAR 2007-08**

(in '00 Nos)

Seasons	Cows						Buffaloes		Goats	
	Crossbreed		Indigenous		Total		Inmilk	Milch	Inmilk	Milch
	Inmilk	Milch	Inmilk	Milch	Inmilk	Milch				
Summer	6900	10101	995	1376	7895	11477	128	182	4341	6882
Rainy	7189	10379	1036	1405	8225	11784	130	185	4726	7458
Winter	7119	10229	1008	1397	8127	11626	112	166	4804	7664
Overall	7069	10237	1013	1393	8082	11630	123	178	4624	7334
2007-08										
2006-07	6950	9707	1024	1409	7974	11116	131	182	3902	5985
% Variation	1.70	5.45	-1.07	-1.13	1.35	4.62	-6.10	-2.10	18.50	22.50

The estimated population of crossbreed in milk cows in the State under report was 7.06 lakhs and that of indigenous cows was 1.01 lakhs. It shows an increase of 1.70 and a decrease of 1.07 percentage respectively. During the year under report, the crossbreed milch and indigenous milch animals were 10.23 lakhs and 1.39 lakhs respectively. From the table it can also be seen that the estimated number of in milk and milch animals in the state during the year was 8.08 and 11.63 lakhs respectively. In the case of buffalo population there is a decrease of 6.10 and 2.10 percentages. Where as in the case of goat there is an increase of 18.5 and 22.5 percentages compared to 2006-07.

**AVERAGE MILK YIELD PER DAY PER ANIMAL IN MILK IN KERALA  
DURING THE YEAR 2007-08**

(in Kgs)

Season	Cows		Buffaloes	Goats
	Crossbreed	Indigenous		
Summer	7.788	2.600	6.006	0.552
Rainy	7.925	2.683	6.141	0.587
Winter	7.831	2.670	6.093	0.581
Overall 2007-08	7.848	2.651	6.080	0.573
2006-07	7.508	2.627	6.240	0.606
% Variation	4.52	0.91	-2.56	-5.44

From the table it can be seen that the average yield per day of crossbreed cow in milk was 7.848 Kgs. And that of indigenous cow was 2.651 Kgs. In the case of buffalo and goat the yield rate was 6.080 Kgs. and 0.573 Kgs respectively. It seen that there is slight increase of all categories of animals.

**TOTAL MILK PRODUCTION IN KERALA DURING THE YEAR 2007-08**

Season	Cows			Buffaloes	Goat	G.Total
	Crossbreed	Indigenous	Total			
Summer	655.553	31.575	687.128	9.360	29.241	725.729
Rainy	700.773	34.195	734.968	9.822	34.136	778.926
Winter	669.017	32.279	701.296	8.164	33.519	742.979
Overall 2007-08	2025.343	98.049	2123.392	27.346	96.896	2247.634
2006-07	1904.675	98.268	2002.943	29.846	86.086	2118.875
% Variation	6.33	-0.22	6.01	-8.37	12.57	6.07

Season wise milk production is estimated. The total milk production during the year under report is 2247.634 thousand tonnes. 6.07 % increase was shown in total milk production in the state compared to 2006-07.

**Table 3.4 : Estimated Number of Productive Cows (Indigenous)**

(In '00)

Sl.No.	Name of District	Inmilk				Dry				Milch			
		Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall
		1	Thiruvananthapuram	10	15	11	12	2	4	3	3	12	15
2	Kollam	27	26	26	26	14	11	11	12	41	38	37	39
3	Pathanamthitta	39	33	32	35	6	9	6	7	45	42	38	41
4	Alappuzha	12	12	12	12	2	4	4	4	14	15	16	15
5	Kottayam	11	10	10	10	13	7	7	9	24	19	16	20
6	Idukki	66	68	63	66	25	22	18	22	91	87	81	86
7	Ernakulam	58	64	65	62	20	21	27	23	78	85	92	85
8	Thrissur	26	40	34	33	6	9	9	8	32	42	43	39
9	Palakkad	158	159	162	160	56	81	79	72	214	232	242	229
10	Malappuram	94	100	96	97	24	29	25	26	118	122	120	120
11	Kozhikode	170	177	171	173	66	54	50	57	236	230	221	229
12	Wayanad	37	39	37	38	19	18	18	19	56	56	55	56
13	Kannur	81	88	86	85	45	46	45	45	126	130	131	129
14	Kasaragode	206	206	203	205	83	90	86	87	289	291	289	290
<b>State Total</b>		<b>995</b>	<b>1036</b>	<b>1008</b>	<b>1013</b>	<b>383</b>	<b>405</b>	<b>389</b>	<b>392</b>	<b>1376</b>	<b>1405</b>	<b>1397</b>	<b>1393</b>

Table 3.5 : Estimated Number of Productive Cows (Crossbreed)

Sl.No.	Name of District	(In '00)											
		Inmilk			Dry			Milch					
		Summer	Rainy	Winter Overall	Summer	Rainy	Winter Overall	Summer	Rainy	Winter Overall			
1	Thiruvananthapuram	716	662	652	677	306	192	182	227	1022	854	834	903
2	Kollam	651	634	603	630	188	205	232	208	840	839	835	838
3	Pathanamthitta	386	443	419	416	152	173	173	166	538	616	592	582
4	Alappuzha	393	460	456	436	146	141	148	145	539	600	604	581
5	Kottayam	537	550	552	546	194	222	219	212	731	772	771	758
6	Idukki	494	504	499	499	244	237	230	237	738	741	729	736
7	Ernakulam	647	667	666	660	207	260	265	244	854	927	931	904
8	Thrissur	513	548	573	545	320	308	227	285	833	856	800	830
9	Palakkad	731	754	760	748	439	495	496	477	1171	1249	1256	1225
10	Malappuram	431	455	413	433	198	199	198	198	629	654	611	631
11	Kozhikode	371	408	419	399	245	242	232	240	617	650	651	639
12	Wayanad	322	330	331	328	198	217	207	207	520	548	538	535
13	Kannur	522	565	571	552	271	201	197	223	793	766	768	775
14	Kasaragode	185	209	206	200	92	99	104	98	277	307	310	298
<b>State Total</b>		<b>6900</b>	<b>7189</b>	<b>7119</b>	<b>7069</b>	<b>3201</b>	<b>3190</b>	<b>3110</b>	<b>3167</b>	<b>10101</b>	<b>10379</b>	<b>10229</b>	<b>10237</b>



**Table 3.6 : Estimated Number of Productive Buffalo**

(In '00)

Sl.No.	Name of District	inmilk			Dry			Milch					
		Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall
1	Thiruvananthapuram	8	9	7	8	6	4	3	4	14	13	10	12
2	Kollam	7	9	7	7	4	4	2	3	10	13	9	11
3	Pathanamthitta	2	2	2	2	2	2	1	2	4	4	3	4
4	Alappuzha	6	8	7	7	1	6	6	4	7	14	13	11
5	Kottayam	8	5	4	6	2	3	4	3	10	7	8	8
6	Idukki	7	8	8	8	4	5	2	4	11	13	10	11
7	Ernakulam	22	23	18	21	9	4	7	7	31	28	25	28
8	Thrissur	16	18	23	19	3	4	5	4	19	22	28	23
9	Palakkad	15	11	8	11	8	6	8	7	23	17	16	18
10	Malappuram	17	19	14	17	6	6	5	6	23	25	19	22
11	Kozhikode	2	4	2	2	1	2	2	1	2	6	4	4
12	Wayanad	6	4	4	4	3	2	2	3	9	6	6	7
13	Kannur	6	5	3	5	3	1	1	2	8	7	4	6
14	Kasaragode	7	5	6	6	3	5	5	4	10	10	11	10
<b>State Total</b>		<b>128</b>	<b>130</b>	<b>112</b>	<b>123</b>	<b>54</b>	<b>55</b>	<b>52</b>	<b>54</b>	<b>182</b>	<b>185</b>	<b>166</b>	<b>178</b>

**Table 3.7 : Estimated Number of Productive Goats**

(In '00)

Sl.No.	Name of District	Inmilk				Dry			Milch						
		Summer		Winter		Summer		Winter		Summer		Winter			
		Rainy	Overall	Rainy	Overall	Rainy	Overall	Rainy	Overall	Rainy	Overall	Rainy	Overall		
1	Thiruvananthapuram	642	642	639	642	237	237	241	233	237	879	879	887	872	879
2	Kollam	414	423	429	423	223	220	222	214	220	637	643	649	643	643
3	Pathanamthitta	219	231	234	231	95	93	92	93	93	314	324	331	327	324
4	Alappuzha	152	185	196	185	80	96	97	110	96	232	281	304	306	281
5	Kottayam	308	378	417	378	254	257	255	263	257	562	635	664	680	635
6	Idukki	276	303	320	303	171	182	186	188	182	448	484	497	508	484
7	Ernakulam	534	510	501	510	259	243	237	233	243	794	753	732	734	753
8	Thrissur	272	311	350	311	190	253	232	337	253	462	565	544	687	565
9	Palakkad	359	388	424	388	297	323	333	341	323	656	711	712	765	711
10	Malappuram	450	515	543	515	214	223	231	223	223	665	738	782	766	738
11	Kozhikode	210	233	242	233	124	150	152	174	150	334	383	399	416	383
12	Wayanad	104	110	110	110	165	181	183	197	181	268	292	300	307	292
13	Kannur	309	299	302	299	156	167	182	163	167	465	466	468	465	466
14	Kasaragode	92	96	96	96	75	85	90	89	85	166	180	189	185	180
<b>State Total</b>		<b>4341</b>	<b>4624</b>	<b>4804</b>	<b>4624</b>	<b>2541</b>	<b>2711</b>	<b>2732</b>	<b>2860</b>	<b>2711</b>	<b>6882</b>	<b>7334</b>	<b>7458</b>	<b>7664</b>	<b>7334</b>

**Table 3.8 : Estimated Milk Yield per day per Animal (gms) - Indigenous Cows**

Sl.No.	Name of District	Inmilk				Milch			
		Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall
1	Thiruvananthapuram	3233	3300	3150	3230	2740	2606	2487	2833
2	Kollam	1367	1438	1500	1430	915	1022	1067	976
3	Pathanamthitta	3650	3500	3300	3487	3237	2762	2793	2917
4	Alappuzha	3000	3000	2800	2926	2508	2177	2032	2246
5	Kottayam	3333	3400	3250	3320	1613	1965	1879	1695
6	Idukki	1667	1750	2375	1915	1229	1324	1858	1459
7	Ernakulam	4500	4385	4300	4379	3421	3320	3032	3217
8	Thrissur	2750	2800	2700	2747	2238	2268	2120	2339
9	Palakkad	2667	2769	2786	2733	2002	1835	1873	1907
10	Malappuram	2429	2500	2500	2470	1969	1942	1988	1986
11	Kozhikode	1731	1883	1830	1811	1269	1444	1415	1368
12	Wayanad	3167	3167	3100	3137	2125	2162	2068	2115
13	Kannur	3530	3643	3692	3614	2299	2383	2416	2370
14	Kasaragode	2491	2581	2407	2487	1807	1796	1688	1758
	<b>State Average</b>	<b>2600</b>	<b>2683</b>	<b>2670</b>	<b>2652</b>	<b>1912</b>	<b>1929</b>	<b>1926</b>	<b>1924</b>

**Table 3.9 : Estimated Milk - Yield per day per Animal (gms) - Crossbreed Cows**

Sl.No.	Name of District	Inmilk				Milch			
		Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall
1	Thiruvananthapuram	9476	10153	9994	9838	6750	7869	7810	7368
2	Kollam	7871	8149	8510	8146	6213	6160	6149	6122
3	Pathanamthitta	7871	9247	9039	9136	6699	6648	6399	6528
4	Alappuzha	8846	8972	8980	8912	6559	6867	6775	6687
5	Kottayam	10971	10331	9993	10400	8194	7359	7152	7495
6	Idukki	7905	7967	7656	7823	5375	5423	5242	5305
7	Ernakulam	7639	7717	7244	7514	5886	5553	5180	5486
8	Thrissur	6982	7178	7051	7051	4372	4595	5054	4631
9	Palakkad	6920	7225	7390	7160	4396	4361	4472	4374
10	Malappuram	5360	5794	5607	5578	3738	4032	3786	3825
11	Kozhikode	5837	5963	5831	5861	3577	3740	3749	3660
12	Wayanad	7775	7987	7955	7885	4893	4818	4899	4830
13	Kannur	6276	6341	6534	6368	4196	4679	4855	4536
14	Kasaragode	6282	6458	6253	6317	4269	4386	4148	4233
<b>State Average</b>		<b>7788</b>	<b>7925</b>	<b>7831</b>	<b>7849</b>	<b>5409</b>	<b>5489</b>	<b>5450</b>	<b>5406</b>

Table 3.10 : Estimated Milk - Yield per day per Animal (gms) - Buffaloes

Sl. No.	Name of District	Inmilk				Overall	Milch			Overall
		Summer	Rainy	Winter	Overall		Summer	Rainy	Winter	
1	Thiruvananthapuram	6500	6667	6667	6602	3713	4771	4495	4266	
2	Kollam	6215	6375	6350	6310	3736	4481	4895	4433	
3	Pathanamthitta	6000	6200	6000	6049	3128	2785	3620	3035	
4	Alappuzha	5500	5600	5500	5527	4943	3145	2805	3384	
5	Kottayam	6500	6700	6500	6547	5362	4258	3159	4337	
6	Idukki	6167	6333	6444	6302	4103	4019	5277	4329	
7	Ernakulam	5625	6000	5900	5833	4020	5042	4164	4393	
8	Thrissur	7361	8500	7292	7665	6423	6922	6073	6360	
9	Palakkad	4333	4500	4938	4529	2800	2867	2622	2768	
10	Malappuram	6750	4833	4833	5473	5052	3669	3543	4087	
11	Kozhikode	6500	6800	6500	6658	3451	4649	3055	4020	
12	Wayanad	6000	6000	5850	5945	3992	3668	3627	3744	
13	Kannur	5500	6000	5800	5753	3581	4966	3901	4216	
14	Kasaragode	5000	5100	5700	5240	4269	2390	2999	2916	
<b>State Average</b>		<b>6006</b>	<b>6141</b>	<b>6093</b>	<b>6084</b>	<b>4239</b>	<b>4324</b>	<b>4098</b>	<b>4209</b>	

Table 3.11 : Estimated Milk - Yield per day per Animal (gms) - Goats

Sl.No.	Name of District	Inmilk				Milch			
		Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall
1	Thiruvananthapuram	712	750	687	715	879	546	503	522
2	Kollam	699	724	716	711	637	476	478	468
3	Pathanamthitta	717	709	706	709	314	513	506	505
4	Alappuzha	625	646	657	642	232	440	420	423
5	Kottayam	1443	1259	998	1211	562	775	613	720
6	Idukki	761	797	760	771	447	499	480	482
7	Ernakulam	528	662	609	596	793	448	416	404
8	Thrissur	501	504	477	491	462	289	243	271
9	Palakkad	167	170	433	263	656	91	240	143
10	Malappuram	223	215	200	211	664	151	142	148
11	Kozhikode	109	273	252	216	334	169	146	131
12	Wayanad	564	601	605	589	269	235	217	223
13	Kannur	97	170	477	246	465	104	310	158
14	Kasaragode	592	623	599	603	167	326	311	320
	<b>State Average</b>	<b>552</b>	<b>587</b>	<b>581</b>	<b>573</b>	<b>6881</b>	<b>372</b>	<b>364</b>	<b>361</b>

**Table 3.12 : Milk Production - Indigenous Cows**

(In '000 tonnes)

<i>Sl.No.</i>	<i>Name of District</i>	<i>Summer</i>	<i>Rainy</i>	<i>Winter</i>	<i>Annual (Total)</i>
1	Thiruvananthapuram	0.396	0.611	0.427	1.433
2	Kollam	0.450	0.460	0.468	1.377
3	Pathanamthitta	1.748	1.408	1.272	4.429
4	Alappuzha	0.421	0.425	0.387	1.233
5	Kottayam	0.465	0.398	0.371	1.234
6	Idukki	1.342	1.469	1.802	4.614
7	Ernakulam	3.202	3.461	3.346	10.008
8	Thrissur	0.859	1.372	1.107	3.338
9	Palakkad	5.140	5.428	5.432	16.000
10	Malappuram	2.788	3.081	2.872	8.740
11	Kozhikode	3.594	4.112	3.752	11.458
12	Wayanad	1.428	1.525	1.375	4.328
13	Kannur	3.475	3.921	3.809	11.206
14	Kasaragode	6.266	6.524	5.861	18.650
	<b>State Total</b>	<b>31.575</b>	<b>34.195</b>	<b>32.279</b>	<b>98.049</b>

**Table 3.13 : Milk Production - Crossbreed Cows**

(In '000 tonnes)

<i>Sl.No.</i>	<i>Name of District</i>	<i>Summer</i>	<i>Rainy</i>	<i>Winter</i>	<i>Annual (Total)</i>
1	Thiruvananthapuram	82.788	82.673	78.160	243.621
2	Kollam	62.551	63.570	61.616	187.737
3	Pathanamthitta	43.252	50.406	45.460	139.118
4	Alappuzha	42.427	50.711	49.107	142.245
5	Kottayam	71.880	69.906	66.173	207.959
6	Idukki	47.604	49.405	45.858	142.867
7	Ernakulam	60.320	63.291	57.873	181.484
8	Thrissur	43.706	48.395	48.522	140.622
9	Palakkad	61.715	66.983	67.408	196.106
10	Malappuram	28.212	32.439	27.757	88.408
11	Kozhikode	26.444	29.898	29.287	85.629
12	Wayanad	30.532	32.468	31.628	94.628
13	Kannur	39.931	44.060	44.739	128.730
14	Kasaragode	14.191	16.567	15.430	46.189
	<b>State Total</b>	<b>655.553</b>	<b>700.773</b>	<b>669.017</b>	<b>2025.343</b>

**Table 3.14 : Milk Production - Buffaloes**

(In '000 tonnes)

<i>Sl.No.</i>	<i>Name of District</i>	<i>Summer</i>	<i>Rainy</i>	<i>Winter</i>	<i>Annual (Total)</i>
1	Thiruvananthapuram	0.624	0.760	0.539	1.924
2	Kollam	0.493	0.708	0.529	1.730
3	Pathanamthitta	0.150	0.138	0.130	0.419
4	Alappuzha	0.415	0.548	0.438	1.401
5	Kottayam	0.643	0.391	0.303	1.338
6	Idukki	0.542	0.633	0.633	1.808
7	Ernakulam	1.496	1.723	1.249	4.467
8	Thrissur	1.464	1.900	2.040	5.405
9	Palakkad	0.773	0.595	0.503	1.872
10	Malappuram	1.394	1.148	0.808	3.350
11	Kozhikode	0.124	0.314	0.147	0.585
12	Wayanad	0.431	0.275	0.261	0.967
13	Kannur	0.387	0.397	0.187	0.971
14	Kasaragode	0.424	0.290	0.396	1.110
<b>State Total</b>		<b>9.360</b>	<b>9.822</b>	<b>8.164</b>	<b>27.346</b>

**Table 3.15 : Milk Production - Goats**

(In '000 tonnes)

<i>Sl.No.</i>	<i>Name of District</i>	<i>Summer</i>	<i>Rainy</i>	<i>Winter</i>	<i>Annual (Total)</i>
1	Thiruvananthapuram	5.572	5.957	5.266	16.795
2	Kollam	3.528	3.799	3.686	11.013
3	Pathanamthitta	1.920	2.086	1.984	5.990
4	Alappuzha	1.157	1.648	1.543	4.348
5	Kottayam	5.419	6.330	4.999	16.748
6	Idukki	2.565	3.050	2.924	8.540
7	Ernakulam	3.442	4.028	3.661	11.131
8	Thrissur	1.663	1.936	2.001	5.600
9	Palakkad	0.730	0.796	2.204	3.730
10	Malappuram	1.223	1.458	1.303	3.984
11	Kozhikode	0.280	0.826	0.731	1.838
12	Wayanad	0.714	0.866	0.799	2.379
13	Kannur	0.364	0.598	1.728	2.690
14	Kasaragode	0.662	0.759	0.691	2.111
<b>State Total</b>		<b>29.241</b>	<b>34.136</b>	<b>33.519</b>	<b>96.897</b>



**Table 3.16 : Total Milk Production in the State**

Sl.No.	Name of District	Cow			Goat	Total Milk Production	Previous Year's Production 2006-07	% Increase or Decrease	
		Indigenous	Crossbreed	Total					
1	Thiruvananthapuram	1.433	243.621	245.054	1.924	16.795	263.772	223.263	18.14
2	Kollam	1.377	187.737	189.114	1.730	11.013	201.857	199.940	0.96
3	Pathanamthitta	4.429	139.118	143.547	0.419	5.990	149.956	136.785	9.63
4	Alappuzha	1.233	142.245	143.478	1.401	4.348	149.227	125.909	18.52
5	Kottayam	1.234	207.959	209.193	1.338	16.748	227.278	196.307	15.78
6	Idukki	4.614	142.867	147.481	1.808	8.540	157.829	140.731	12.15
7	Ernakulam	10.008	181.484	191.492	4.467	11.131	207.091	197.529	4.84
8	Thrissur	3.338	140.622	143.961	5.405	5.600	154.966	150.956	2.66
9	Palakkad	16.000	196.106	212.106	1.872	3.730	217.707	212.799	2.31
10	Malappuram	8.740	88.408	97.148	3.350	3.984	104.482	117.989	-11.45
11	Kozhikode	11.458	85.629	97.087	0.585	1.838	99.510	123.597	-19.49
12	Wayanad	4.328	94.628	98.956	0.967	2.379	102.302	101.333	0.96
13	Kannur	11.206	128.730	139.936	0.971	2.690	143.597	122.991	16.75
14	Kasaragode	18.650	46.189	64.839	1.110	2.111	68.060	68.745	-1.00
<b>State Total</b>		<b>98.049</b>	<b>2025.343</b>	<b>2123.392</b>	<b>27.346</b>	<b>96.897</b>	<b>2247.635</b>	<b>2118.874</b>	<b>6.08</b>

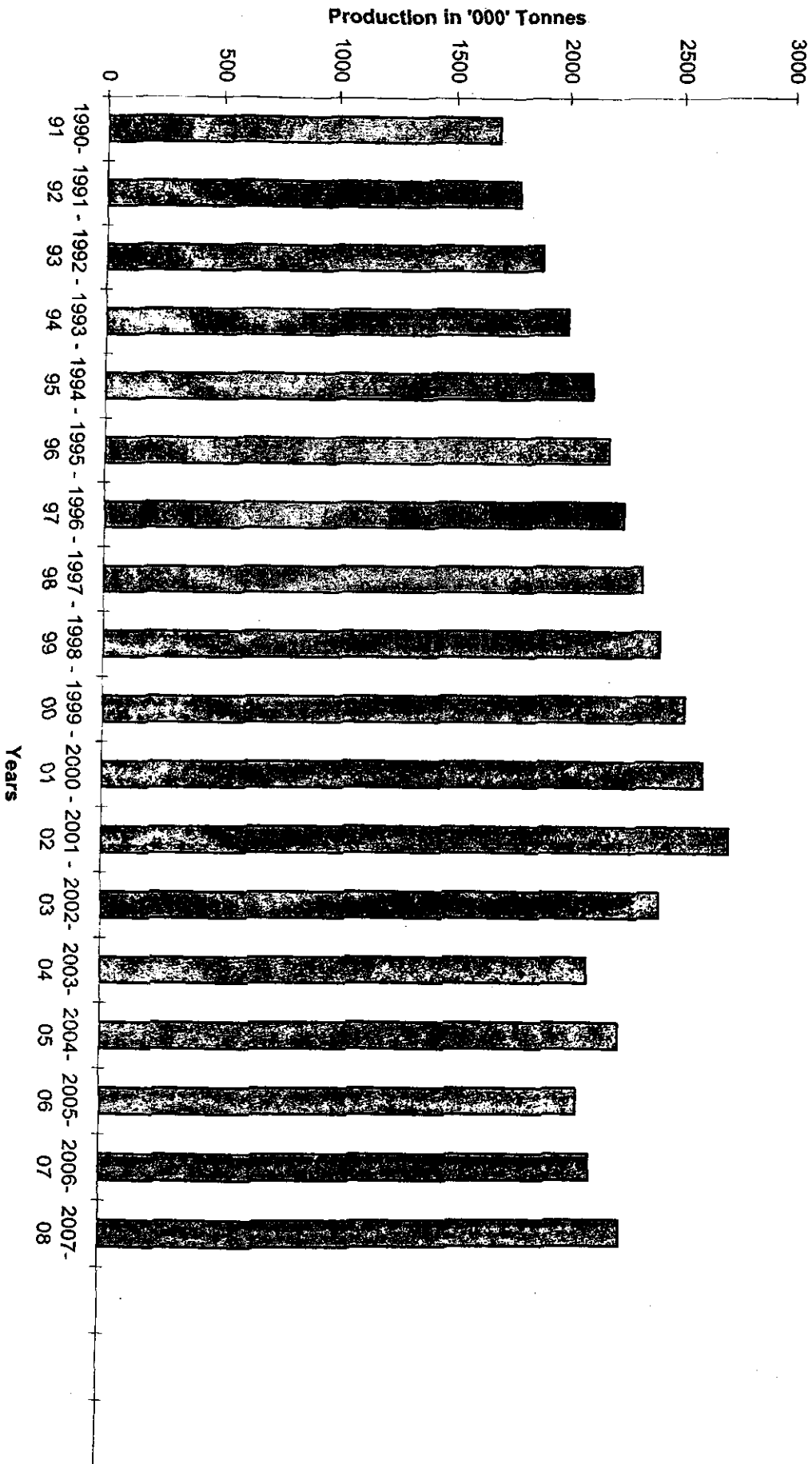
**Table 3.17 : Estimated Number of animals Inmilk and Milch in the State from the year 1988 - 89**

(In '00 Nos.)

Sl.No.	Year	Inmilk				Milch			
		Cows		Buffalo	Goat	Cows		Buffalo	Goat
		Indigenous	Crossbreed			Indigenous	Crossbreed		
1	1988 - 89	4528	5957	817	4750	7418	8516	1197	7215
2	1989 - 90	4793	6136	812	4840	7317	8629	1119	7552
3	1990 - 91	4873	6259	811	4802	7343	8777	1156	7492
4	1991 - 92	4778	6606	836	4879	7278	9256	1193	7594
5	1992 - 93	4764	6887	837	4868	7256	9651	1195	7697
6	1993 - 94	4688	7441	845	5019	7338	10701	1212	7492
7	1994 - 95	4681	8027	831	5138	7641	11614	1196	8072
8	1995 - 96	4072	8108	485	5211	5418	11058	1212	7885
9	1996 - 97	3905	8478	464	5344	5133	11448	640	8303
10	1997 - 98	3105	8346	378	5442	5057	11877	502	8690
11	1998 - 99	2927	8557	359	5454	3995	12241	495	8562
12	1999 - 00	2496	8942	336	5563	3385	11793	434	7410
13	2000 - 01	2132	9297	300	5604	2841	12388	402	7964
14	2001 - 02	1698	9688	287	5735	2216	12698	367	8017
15	2002 - 03	1892	8293	214	5072	2455	10778	267	6620
16	2003 - 04	1428	7236	175	3780	1885	9769	224	5027
17	2004 - 05	1159	7052	167	3549	1544	9359	216	4780
18	2005 - 06	1122	7034	157	3642	1491	9295	208	4952
19	2006 - 07	1024	6950	131	3903	1410	9709	193	9584
20	2007 - 08	1013	7069	123	4624	1393	10237	178	7334

**Table 3.18 : Estimated Milk Production in the State for the last 18 years**  
(In '000 tonnes)

Sl.No.	Year	Cows		Buffalo	Goat	Total
		Indigenous	Crossbred			
1	1990 - 91	306.804	1185.057	101.179	96.54	1689.58
2	1991 - 92	306.926	1268.766	106.881	101.961	1784.534
3	1992 - 93	324.077	1350.708	109.303	105.335	1889.423
4	1993 - 94	318.965	1462.577	110.226	109.562	2001.330
5	1994 - 95	318.535	1578.580	108.587	112.544	2118.246
6	1995 - 96	328.158	1664.105	85.290	114.671	2192.224
7	1996 - 97	315.830	1742.002	81.823	118.436	2258.091
8	1997 - 98	258.621	1888.857	74.045	121.399	2342.922
9	1998 - 99	272.600	1947.069	74.803	125.570	2420.042
10	1999 - 00	227.970	2099.554	70.027	127.719	2525.270
11	2000 - 01	195.043	2224.791	63.447	122.117	2605.398
12	2001 - 02	156.592	2381.015	62.994	117.284	2717.885
13	2002 - 03	175.930	2088.775	48.031	106.240	2418.976
14	2003 - 04	136.319	1855.677	39.790	78.768	2110.553
15	2004 - 05	98.049	2025.343	27.346	96.897	2247.635
16	2005 - 06	108.176	1839.340	36.474	79.210	2063.200
17	2006 - 07	98.268	1904.675	29.846	86.086	2118.875
18	2007 - 08	98.049	2025.343	27.346	96.897	2247.634



**Estimated Milk Production for the last 18 years**

**Egg Production****NUMBER OF WARDS AND HOUSEHOLD OBSERVED FOR EGG PRODUCTION IN KERALA DURING THE YEAR 2007-08**

Season	No. of wards covered	No. of households covered	Number of layers observed	
			Desi	Improved
Summer	140	6030	10988	9694
Rainy	139	5786	11729	9725
Winter	140	5385	10700	8113
<b>Total</b>	<b>419</b>	<b>17201</b>	<b>33417</b>	<b>27532</b>

During the period under report 17201 household were observed from 419 wards and 61849 layers were observed.

**ESTIMATED NUMBER OF LAYERS IN KERALA DURING THE YEAR 2007-08**

(In 00's)

Season	Fowl			Duck		
	Desi	Improved	Total	Desi	Improved	Total
Summer	49940	23032	72972	4263	1691	5954
Rainy	50983	24557	75540	3998	1719	5717
Winter	50269	25883	76152	4013	1737	5750
Total 2007-08	50410	24491	74888	4091	1716	5807
Total 2006-07	49319	20165	69484	4528	1425	5953
% Variation	2.21	2.15	7.77	-10	20.42	-2.45

The population of layers was estimated both for Desi and improved. During the year under report number of fowl was 74.88 lakhs and duck was 5.80 lakhs.

**SEASONWISE AVERAGE EGG YIELD PER LAYER DURING THE YEAR 2007-08**

Season	Fowl		Duck	
	Desi	Improved	Desi	Improved
Summer	48	73	52	60
Rainy	50	72	52	64
Winter	51	72	48	62
Total 2007-08	149	217	152	186
Total 2006-07	134	220	155	181
% Variation	11.19	-1.36	-1.9	2.76

During the year under report average yield per desi and improved fowl was 149 and 217 and that of duck was 152 and 186. The yield rate of fowl desi and duck improved are decreased.

**TOTAL EGG PRODUCTION IN KERALA DURING THE YEAR 2007-08**

(lakh Nos.)

<i>Season</i>	<i>Fowl</i>			<i>Duck</i>			<i>Total</i>
	<i>Desi</i>	<i>Improved</i>	<i>Total</i>	<i>Desi</i>	<i>Improved</i>	<i>Total</i>	
Summer	2426.620	1648.735	4075.355	213.379	97.826	311.205	4386.560
Rainy	2600.511	1816.831	4417.342	206.878	110.947	317.825	4735.167
Winter	2499.551	1858.663	4358.214	201.579	110.288	311.867	4670.081
Total 2007-08	7526.682	5324.229	12850.911	621.836	319.061	940.897	13791.808
Total 2006-07	6596.113	4433.699	11029.812	699.856	257.24	957.096	11986.908
% Variation	14.10	20.08	16.51	-11.14	24.03	-1.69	15.05

From the table it is clear that the total egg production in the State during the year was 13791.808 lakhs. It shows an increase of 15.05%.

EGG PRODUCTION

Table 3.19 : Estimated Number of Total Layers (In '00 Nos.)

Sl. No.	Name of District	Desi Fowls			Improved Fowls			Total Fowls					
		Summer	Rainy	Winter Overall	Summer	Rainy	Winter Overall	Summer	Rainy	Winter Overall			
1	Thiruvananthapuram	3821	3885	3808	3838	2478	2538	2564	2527	6300	6423	6371	6365
2	Kollam	2923	2875	2907	2901	3395	3691	3580	3555	6318	6566	6486	6457
3	Pathanamthitta	2615	3009	3145	2923	1591	1817	1993	1800	4206	4826	5138	4723
4	Alappuzha	2734	2803	2999	2845	1216	1513	1579	1436	3950	4315	4578	4281
5	Kottayam	4380	4224	4246	4284	1558	2382	2395	2112	5939	6606	6641	6395
6	Idukki	1822	1992	1815	1876	840	976	1014	943	2662	2968	2829	2820
7	Ernakulam	4380	4440	4267	4362	1639	1775	2006	1806	6019	6215	6273	6169
8	Thrissur	5870	5922	6195	5996	3540	2972	2610	3041	9410	8893	8805	9036
9	Palakkad	5041	4226	3796	4354	1014	567	1295	959	6055	4793	5092	5313
10	Malappuram	6979	7415	7328	7240	2031	2353	2371	2252	9010	9768	9698	9492
11	Kozhikode	3780	3909	3651	3780	1409	1407	1821	1546	5189	5317	5472	5326
12	Wayanad	1280	1458	1288	1342	575	634	635	615	1855	2092	1923	1957
13	Kannur	2460	2801	2820	2694	1358	1490	1566	1472	3819	4292	4387	4166
14	Kasaragode	1854	2024	2005	1961	387	441	453	427	2241	2466	2458	2388
<b>State Total</b>		<b>49940</b>	<b>50983</b>	<b>50269</b>	<b>50397</b>	<b>23032</b>	<b>24557</b>	<b>25883</b>	<b>24490</b>	<b>72972</b>	<b>75540</b>	<b>76152</b>	<b>74888</b>

**Table 3.20 : Estimated yield per annum per layer (In Number)**

Sl. No.	Name of District	Desi Fowls				Improved Fowls			
		Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall
1	Thiruvananthapuram	157	160	158	158	220	225	226	223
2	Kollam	109	128	128	121	179	182	182	181
3	Pathanamthitta	167	171	170	169	220	232	231	227
4	Alappuzha	159	162	162	161	193	195	195	194
5	Kottayam	145	146	146	145	238	240	239	238
6	Idukki	142	145	144	144	229	233	231	230
7	Ernakulam	145	152	152	149	223	225	226	224
8	Thrissur	164	166	165	164	226	231	232	229
9	Palakkad	145	150	151	148	184	198	198	192
10	Malappuram	138	151	150	146	229	233	234	232
11	Kozhikode	132	132	131	132	180	184	184	182
12	Wayanad	127	131	130	129	192	193	191	192
13	Kannur	165	167	168	166	277	279	276	277
14	Kasaragode	127	143	142	137	221	224	226	223
<b>State Average</b>		<b>146</b>	<b>152</b>	<b>152</b>	<b>149</b>	<b>215</b>	<b>220</b>	<b>219</b>	<b>217</b>



**Table 3.21 : Estimated Egg Production From Fowls (In lakh Numbers)**

Sl. No.	Name of District	Desi Fowls			Improved Fowls			Total					
		Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall	Summer	Rainy	Winter	Overall
1	Thiruvananthapuram	199.616	208.488	197.074	605.177	182.143	192.326	190.201	564.670	381.759	400.814	387.275	1169.848
2	Kollam	106.067	123.243	122.414	351.723	202.941	226.141	213.461	642.543	309.008	349.384	335.874	994.266
3	Pathanamthitta	145.393	173.006	174.831	493.229	116.838	141.828	150.807	409.473	262.231	314.833	325.638	902.702
4	Alappuzha	145.026	152.894	159.078	456.997	78.357	99.226	100.948	278.531	223.383	252.120	260.026	735.529
5	Kottayam	212.096	207.044	202.947	622.087	123.460	192.444	187.271	503.174	335.555	399.488	390.218	1125.261
6	Idukki	86.523	97.077	85.860	269.460	64.021	76.268	76.868	217.158	150.544	173.345	162.729	486.618
7	Ernakulam	211.145	226.425	212.621	650.191	121.896	134.034	148.726	404.655	333.040	360.459	361.347	1054.846
8	Thrissur	320.334	329.885	335.973	986.192	266.783	231.162	198.774	696.719	587.117	561.047	534.747	1682.911
9	Palakkad	244.328	212.544	188.437	645.309	62.039	37.709	84.241	183.989	306.367	250.253	272.679	829.298
10	Malappuram	321.494	376.793	359.646	1057.933	154.842	184.525	182.069	521.436	476.336	561.318	541.715	1579.369
11	Kozhikode	166.798	173.747	157.071	497.615	84.759	87.090	109.904	281.754	251.557	260.837	266.975	779.369
12	Wayanad	54.175	64.437	55.029	173.641	36.858	41.142	39.777	117.777	91.033	105.579	94.806	291.418
13	Kannur	134.980	157.499	155.095	447.574	125.355	139.670	141.973	406.999	260.335	297.169	297.068	854.572
14	Kasaragode	78.647	97.430	93.476	269.553	28.442	33.267	33.642	95.351	107.089	130.697	127.118	364.904
<b>State Total</b>		<b>2426.620</b>	<b>2600.511</b>	<b>2499.551</b>	<b>7526.682</b>	<b>1648.735</b>	<b>1816.831</b>	<b>1858.663</b>	<b>5324.229</b>	<b>4075.355</b>	<b>4417.342</b>	<b>4358.214</b>	<b>12850.911</b>

Note: The totals may not tally due to the rounded off numerals.

**B. Poultry - Ducks**

**Table 3.22 : Estimated Number of Total Ducks (In '00 Numbers)**

Sl. No.	Name of District	Desi				Improved				Total			
		Summer		Winter		Summer		Winter		Summer	Rainy	Winter	Overall
		Rainy	Overall	Rainy	Overall	Rainy	Overall	Rainy	Overall				
1	Thiruvananthapuram	95	116	116	109	46	58	59	55	141	174	175	163
2	Kollam	383	391	390	388	265	272	277	271	648	663	667	659
3	Pathanamthitta	157	215	220	197	85	112	119	105	243	327	338	303
4	Alappuzha	1839	1512	1528	1626	609	609	609	609	2448	2121	2136	2235
5	Kottayam	495	483	466	481	99	117	110	109	594	600	576	590
6	Idukki	48	53	53	51	35	36	31	34	84	89	84	85
7	Ernakulam	465	510	508	494	219	233	248	233	684	743	757	728
8	Thrissur	278	321	319	306	151	127	119	132	429	447	438	438
9	Palakkad	198	22	51	90	60	2	24	29	258	24	75	119
10	Malappuram	192	245	242	226	42	60	56	53	234	304	298	279
11	Kozhikode	51	50	44	48	47	51	46	48	98	100	90	96
12	Wayanad	31	32	27	30	22	30	25	26	53	62	53	56
13	Kannur	23	36	38	32	6	8	7	7	30	44	45	39
14	Kasaragode	8	13	11	11	3	8	8	6	10	21	18	16
<b>State Total</b>		<b>4263</b>	<b>3998</b>	<b>4013</b>	<b>4091</b>	<b>1691</b>	<b>1722</b>	<b>1737</b>	<b>1717</b>	<b>5954</b>	<b>5720</b>	<b>5750</b>	<b>5808</b>

Note: The totals may not tally due to the rounded off numerals.

Table 3.23 : Estimated Egg Yield per Duck per Year

Sl.No.	Name of District	Summer		Rainy		Winter		Overall	
		Desi	Improved	Desi	Improved	Desi	Improved	Desi	Improved
1	Thiruvananthapuram	158	183	146	194	151	201	151	193
2	Kollam	165	163	176	175	177	183	172	173
3	Pathanamthitta	173	92	174	127	172	137	173	121
4	Alappuzha	145	183	151	195	151	183	148	187
5	Kottayam	160	178	168	198	165	194	164	190
6	Idukki	166	122	183	183	158	179	169	160
7	Ernakulam	153	183	140	222	139	244	143	217
8	Thrissur	127	217	131	217	134	215	130	216
9	Palakkad	142	122	122	122	127	137	137	126
10	Malappuram	165	183	148	220	147	244	152	218
11	Kozhikode	122	146	142	160	144	183	135	162
12	Wayanad	122	183	141	183	142	183	134	183
13	Kannur	220	183	230	183	183	244	208	202
14	Kasaragode	88	183	81	122	143	183	103	156
<b>State Average</b>		<b>150</b>	<b>174</b>	<b>154</b>	<b>192</b>	<b>153</b>	<b>194</b>	<b>152</b>	<b>186</b>

**Table 3.24 : Estimated Egg Production (Ducks)**

Sl. No.	Name of District	Summer			Rainy			Winter			Overall	
		Desi	Improved	Total	Desi	Improved	Total	Desi	Improved	Total	Desi	Improved
1	Thiruvananthapuram	4.998	2.831	7.828	5.699	3.801	9.500	5.720	3.919	9.639	16.417	10.550
2	Kollam	21.005	14.454	35.459	23.162	15.987	39.149	22.663	16.631	39.294	66.830	47.072
3	Pathanamthitta	9.068	2.607	11.675	12.573	4.794	17.367	12.401	5.345	17.747	34.042	12.746
4	Alappuzha	88.607	37.140	125.748	76.785	39.941	116.726	75.635	36.531	112.166	241.027	113.613
5	Kottayam	26.401	5.913	32.314	27.300	7.784	35.083	25.283	6.978	32.261	78.984	20.675
6	Idukki	2.683	1.442	4.125	3.232	2.216	5.448	2.726	1.834	4.559	8.640	5.492
7	Ernakulam	23.664	13.355	37.019	23.935	17.426	41.361	23.114	19.850	42.964	70.713	50.631
8	Thrissur	11.739	10.932	22.671	14.080	9.240	23.320	14.059	8.368	22.428	39.878	28.541
9	Palakkad	9.389	2.441	11.830	0.889	0.100	0.989	2.139	1.061	3.200	12.417	3.602
10	Malappuram	10.559	2.549	13.107	12.200	4.402	16.602	11.679	4.490	16.169	34.437	11.440
11	Kozhikode	2.074	2.294	4.367	2.374	2.722	5.096	2.087	2.769	4.856	6.535	7.784
12	Wayanad	1.274	1.327	2.601	1.526	1.848	3.374	1.282	1.502	2.785	4.082	4.677
13	Kannur	1.698	0.387	2.085	2.759	0.477	3.236	2.284	0.553	2.837	6.741	1.417
14	Kasaragode	0.220	0.154	0.375	0.365	0.311	0.677	0.507	0.455	0.962	1.092	0.921
	<b>State Total</b>	<b>213.379</b>	<b>97.826</b>	<b>311.204</b>	<b>206.878</b>	<b>111.048</b>	<b>317.926</b>	<b>201.579</b>	<b>110.288</b>	<b>311.867</b>	<b>621.836</b>	<b>319.161</b>

Note: The totals may not tally due to the rounded off numerals.

**Table 3.25 : Estimated Total Egg Production (In Lakh Nos.)**

Sl.No.	Name of District	Summer		Rainy		Winter		Overall		Annual Production Current Year	Annual Production Previous Year (2006-07)
		Fowl	Duck	Fowl	Duck	Fowl	Duck	Fowl	Duck		
1	Thiruvananthapuram	381.759	7.828	400.814	9.500	387.275	9.639	1169.848	26.968	1196.815	1065.494
2	Kollam	309.008	35.459	349.384	39.149	335.874	39.294	994.266	113.902	1108.168	956.241
3	Pathanamthitta	262.231	11.675	314.833	17.367	325.638	17.747	902.702	46.789	949.491	758.719
4	Alappuzha	223.383	125.748	252.120	116.726	260.026	112.166	735.529	354.640	1090.168	1134.431
5	Kottayam	335.555	32.314	399.488	35.083	390.218	32.261	1125.261	99.658	1224.919	1046.899
6	Idukki	150.544	4.125	173.345	5.448	162.729	4.559	486.618	14.132	500.750	452.190
7	Ernakulam	333.040	37.019	360.459	41.361	361.347	42.964	1054.846	121.344	1176.190	1013.137
8	Thrissur	587.117	22.671	561.047	23.320	534.747	22.428	1682.911	68.419	1751.330	11224.312
9	Palakkad	306.367	11.830	250.253	0.989	272.679	3.200	829.298	16.019	845.317	884.298
10	Malappuram	476.336	13.107	561.318	16.602	541.715	16.169	1579.369	45.878	1625.247	1446.726
11	Kozhikode	251.557	4.367	260.837	5.096	266.975	4.856	779.369	14.319	793.688	807.847
12	Wayanad	91.033	2.601	105.579	3.374	94.806	2.785	291.418	8.759	300.178	279.241
13	Kannur	260.335	2.085	297.169	3.236	297.068	2.837	854.572	8.158	862.730	652.757
14	Kasaragode	107.089	0.375	130.697	0.677	127.118	0.962	364.904	2.013	366.917	334.264
<b>State Total</b>		<b>4075.355</b>	<b>311.204</b>	<b>4417.342</b>	<b>317.926</b>	<b>4358.214</b>	<b>311.867</b>	<b>12850.911</b>	<b>940.997</b>	<b>13791.908</b>	<b>11986.909</b>

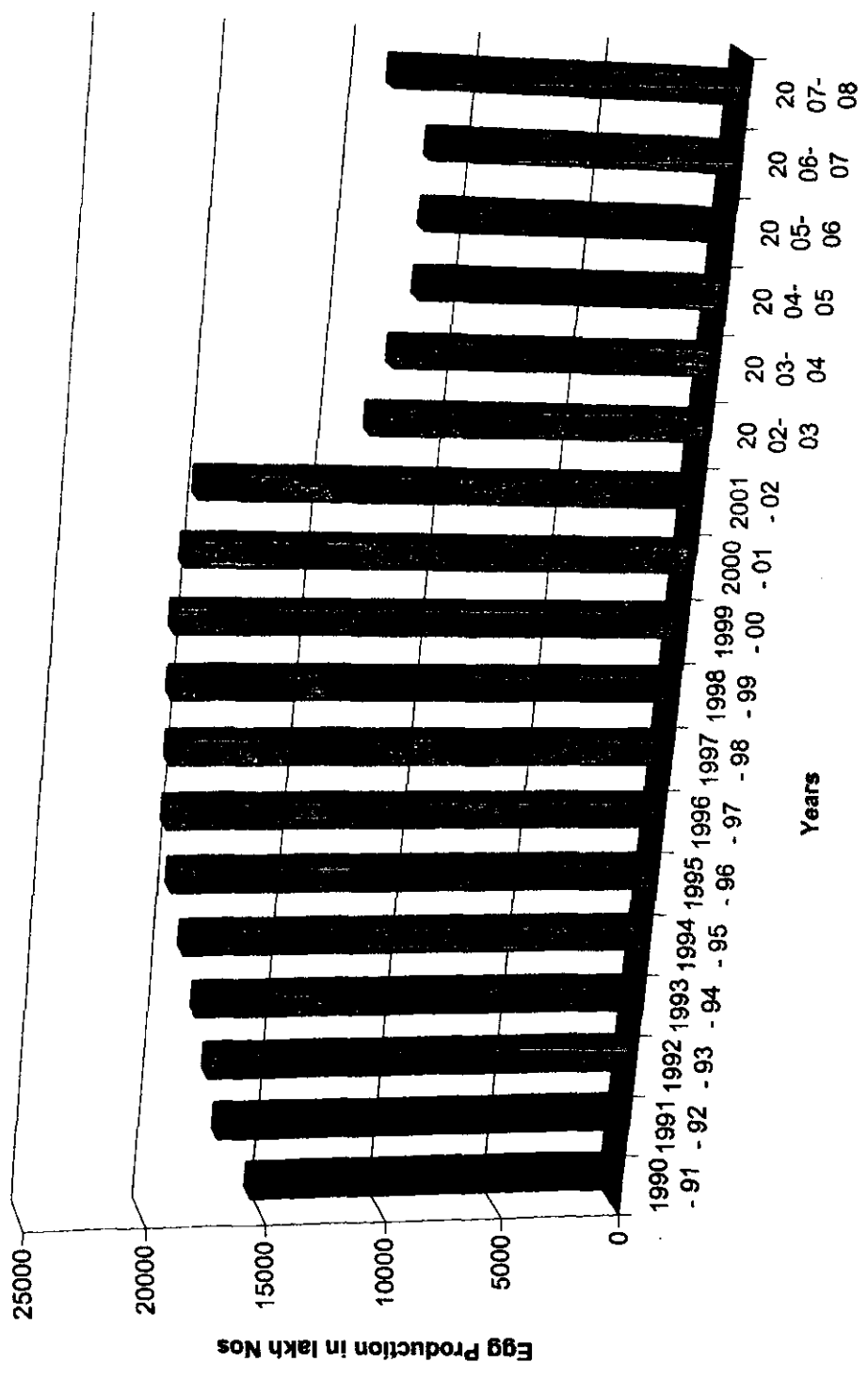
Note : The totals may not tally due to the rounded off numerals.

**Table 3.26 : Estimated Egg Production in the State for the last 18 Years**  
(In Lakh Nos.)

Sl. No.	Year	Fowl Eggs		Duck Eggs		Total Egg Production
		Desi	Improved	Desi	Improved	
1	1990 - 91	4738	10761	...	...	15499
2	1991 - 92	4776	11278	953	95	17102
3	1992 - 93	4791	11815	1031	102	17740
4	1993 - 94	4885	12338	1110	110	18443
5	1994 - 95	4988	12923	1136	113	19160
6	1995 - 96	5013	13529	1207	122	19871
7	1996 - 97	5129	14122	881	110	20242
8	1997 - 98	4979	14444	808	102	20333
9	1998 - 99	5400	14161	767	112	20440
10	1999 - 00	10064	9634	724	120	20542
11	2000 - 01	9386	10145	687	126	20344
12	2001 - 02	9801	9443	661	113	20018
13	2002 - 03	8274	4201	853	140	13469
14	2003 - 04	7174	4531	824	239	12768
15	2004 - 05	6771	4178	793	233	11974
16	2005 - 06	6749	4173	802	232	11956
17	2006 - 07	6596	4434	700	257	11987
18	2007 - 08	7527	5324	622	319	13792

Note: Due to rounding off the totals may not tally.

Estimated Egg Production for the last 18 years



**MEAT PRODUCTION**

The number of animals slaughtered and the meat production given in this report are based on the data collected from the registered and unregistered slaughter houses functioning in the state. The slaughtering of animals in households is not common in Kerala. The precise statistics of animals slaughtered and hence that of the meat production in the unauthorized sector is not accurate. However, it is estimated that a considerable amount of the meat production in the State is from unauthorized sector.

**ESTIMATED NUMBER OF ANIMALS SLAUGHTERED AND MEAT PRODUCTION IN THE STATE DURING THE YEAR 2007-08**

<i>Species</i>	<i>No. of animals slaughtered</i>	<i>Total Meat production (MT)</i>
Cattle	536257	28026
Buffalo	447098	23575
Goat & Sheep	578557	5119
Pigs	79509	3473
Total for 2007-08	1641421	60193
Total 2006-07	1683909	60114
% of variation	-2.5	+0.13
Poultry	10197000	17390

From the table it can be seen that the meat production in the State during the year is 60193 MT. which shows an increase of 0.13% from the previous year. But the number of animals slaughtered was decreased from the previous year. This is because of a decrease in the number of young animals. The poultry meat production in the State during the year was 17390 MT.



**Table 3.27 (a) : Estimated Poultry Meat Production (In MT)**

<i>Sl.No.</i>	<i>Name of District</i>	<i>No. of Chicken Culled (Nos.)</i>	<i>Meat Production (MT)</i>
1	Thiruvananthapuram	466	1046
2	Kollam	590	1378
3	Pathanamthitta	1921	348
4	Alappuzha	938	1947
5	Kottayam	1039	2234
6	Idukki	528	1251
7	Ernakulam	484	1188
8	Thrissur	1284	2701
9	Palakkad	451	1103
10	Malappuram	960	1990
11	Kozhikode	112	420
12	Wayanad	100	427
13	Kannur	691	81
14	Kasaragode	633	1276
	<b>State Total</b>	<b>10197</b>	<b>17390</b>

**Table 3.27 (b) : Number of Slaughter houses and Meat Production**

<i>Sl. No.</i>	<i>Name of District</i>	<i>No. of Authorised Slaughter Houses</i>	<i>Meat Production (MT)</i>
1	Thiruvananthapuram	103	1589
2	Kollam	118	8792
3	Pathanamthitta	34	1333
4	Alappuzha	91	4967
5	Kottayam	168	2943
6	Idukky	396	4768
7	Ernakulam	318	11344
8	Thrissur	349	2301
9	Palakkad	47	315
10	Malappuram	128	9558
11	Kozhikode	91	4061
12	Wayanad	40	1569
13	Kannur	154	4398
14	Kasaragode	42	2255
<b>State Total</b>		<b>2079</b>	<b>60193</b>

**Estimated Number of animals slaughtered category-wise (registered sector only) 2007-2008**

(in Nos.)

Sl.No.	District	Cattle		Buffalo		Goat & Sheep		Pig					
		Adult	Young	Adult	Young	Adult	Young	Desi	Improved				
1	Thiruvananthapuram	13184	6732	19916	6068	3059	9127	18512	9490	38770	48	129	177
2	Kollam	77838	24026	101864	38372	17436	55808	89432	23353	112785	252	830	1082
3	Pathanamthitta	13601	2052	15653	4491	1350	5841	11040	1200	12240	320	1066	1386
4	Alappuzha	34948	11495	46443	32243	12351	44594	32336	7631	39967	695	2168	2863
5	Kottayam	17936	3106	21042	19673	2953	22626	18136	3097	21233	1852	5755	7607
6	Idukki	29307	3405	32712	31646	2962	34608	24525	2428	26953	4520	13982	18502
7	Ernakulam	73242	10068	83310	72247	12150	84397	88334	11842	100176	7620	22867	30487
8	Thrissur	14871	2339	17210	13070	2170	15240	21345	1922	23267	1630	4949	6579
9	Palakkad	2101	404	2505	2047	504	2551	4209	627	4836	3	6	9
10	Malappuram	65526	22325	87851	64433	22134	86567	66655	19385	86040	25	77	102
11	Kozhikode	31022	4617	35639	26213	2652	28865	36259	4450	40709	320	974	1294
12	Wayanad	9020	2493	11513	10665	1775	12440	11393	1221	12614	1002	3059	4061
13	Kannur	36099	7420	43519	21908	5097	27005	41527	6724	48251	1293	3879	5172
14	Kasaragode	16349	731	17080	16867	562	17429	19874	1610	21484	45	143	188
<b>State Total</b>		<b>435044</b>	<b>101213</b>	<b>536257</b>	<b>359943</b>	<b>87155</b>	<b>447098</b>	<b>483577</b>	<b>94980</b>	<b>578557</b>	<b>19625</b>	<b>59884</b>	<b>79509</b>

**Estimated meat yield per animal slaughtered - category-wise (registered sector only) 2007-08**

(in Kg.)

Sl. No.	District	Cattle		Buffalo		Goat & Sheep		Pig	
		Adult	Young	Adult	Young	Adult	Young	Desi	Improved
1	Thiruvananthapuram	60.40	17.08	62.09	15.24	10.24	6.02	20.83	46.51
2	Kollam	60.50	17.16	61.93	16.31	9.36	5.30	20.00	53.01
3	Pathanamthitta	60.00	17.06	62.15	16.44	10.04	5.42	19.25	53.47
4	Alappuzha	60.12	16.58	62.29	16.02	9.21	5.30	17.00	55.35
5	Kottayam	60.08	17.02	62.17	17.02	10.04	5.34	20.43	52.00
6	Idukki	61.04	17.35	62.04	16.13	9.24	5.24	40.00	25.20
7	Ernakulam	60.17	17.14	62.12	16.23	9.19	5.15	51.57	35.55
8	Thrissur	61.04	18.10	62.26	16.16	10.09	5.55	34.35	44.65
9	Palakkad	61.01	17.49	63.09	16.26	9.12	5.61	30.00	49.06
10	Malappuram	61.25	17.60	62.03	16.35	10.09	6.00	40.00	51.95
11	Kozhikode	60.45	17.20	62.43	16.26	9.48	5.81	30.00	49.28
12	Wayanad	60.58	17.03	62.20	15.63	9.26	5.44	36.00	51.65
13	Kannur	60.62	16.37	62.42	16.34	9.28	6.10	40.00	40.73
14	Kasaragode	60.10	17.02	62.39	16.28	9.14	5.64	44.00	41.96
<b>State Average</b>		<b>60.53</b>	<b>17.16</b>	<b>62.26</b>	<b>16.19</b>	<b>9.56</b>	<b>5.57</b>	<b>31.67</b>	<b>46.46</b>

**Estimated Meat Production- category-wise (registered sector only) 2007-08**

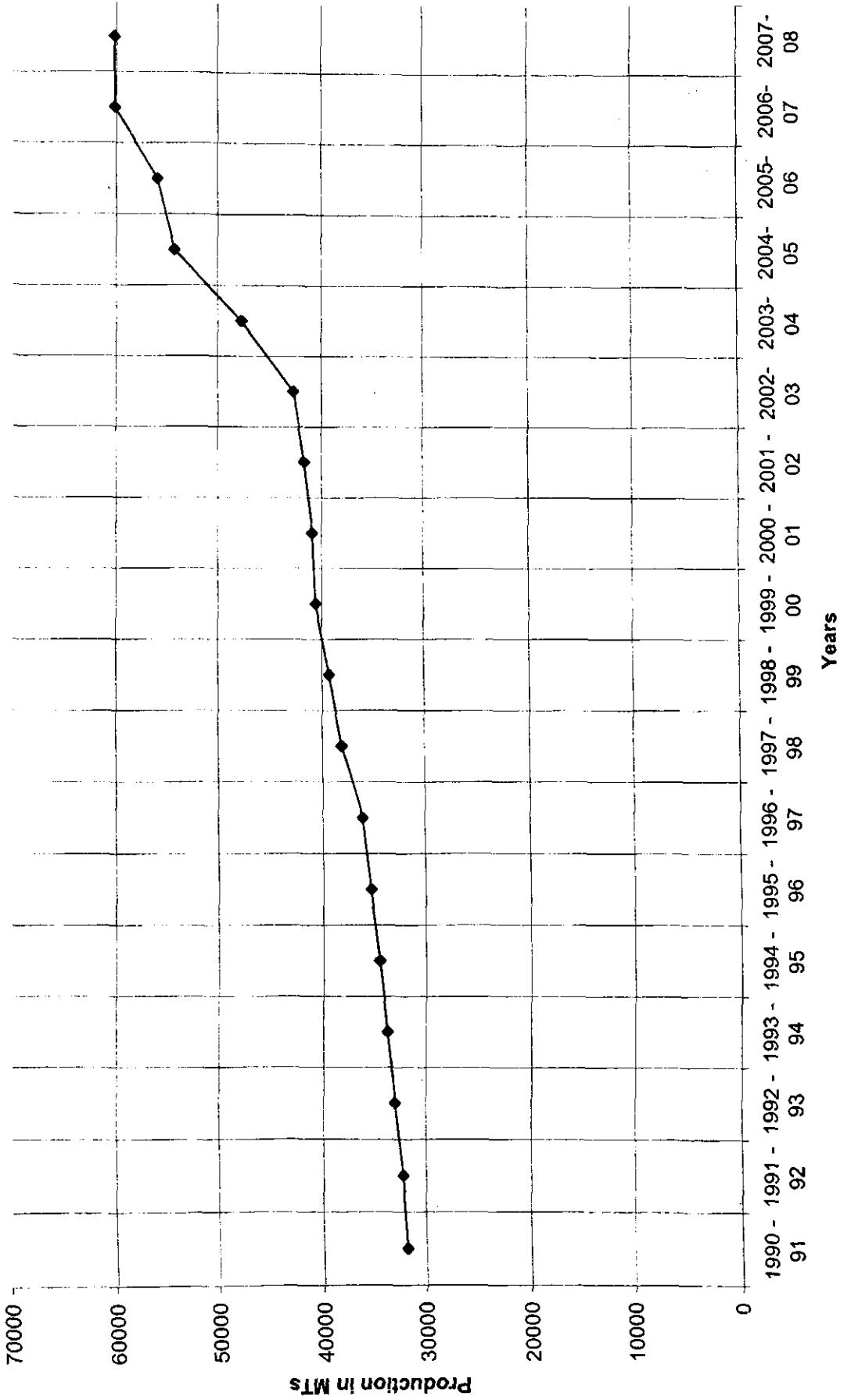
(in MT)

Sl. No.	District	Cattle		Buffalo		Goat		Pig		Total Meat production			
		Adult	Young	Adult	Young	Adult	Young	Desi Improved	Total				
		Total		Total		Total		Total					
1	Thiruvananthapuram	796	115	377	47	423	57	247	1	6	7	1589	
2	Kollam	4709	412	2376	284	2661	124	961	5	44	49	8792	
3	Pathanamthitta	816	35	279	22	301	7	117	6	57	64	1333	
4	Alappuzha	2101	191	2008	198	2206	40	338	11	120	131	4967	
5	Kottayam	1078	53	1223	50	1273	17	199	36	305	341	2943	
6	Idukki	1789	59	1963	48	2011	13	239	319	350	669	4768	
7	Ernakulam	4407	173	4488	197	4685	61	873	393	813	1206	11344	
8	Thrissur	908	42	814	35	849	10	226	56	221	277	2301	
9	Palakkad	128	7	129	8	137	4	42	0	0	0	315	
10	Malappuram	4013	393	3997	362	4359	116	789	1	4	5	9558	
11	Kozhikode	1875	79	1636	43	1680	26	370	9	48	57	4061	
12	Wayanad	546	42	663	28	691	7	112	37	140	177	1569	
13	Kannur	2188	121	1368	83	1451	41	426	53	158	211	4398	
14	Kasaragode	983	12	1052	9	1061	9	191	2	6	7	2255	
<b>State Total</b>		<b>26338</b>	<b>1735</b>	<b>22374</b>	<b>1415</b>	<b>23789</b>	<b>4598</b>	<b>531</b>	<b>5129</b>	<b>929</b>	<b>2272</b>	<b>3202</b>	<b>60194</b>

**Table 3.31 : Meat Production in the State for the last 18 Years  
(Authorised Sector Only)**

<i>Sl.No.</i>	<i>Year</i>	<i>Meat Production</i>	<i>Poultry Meat Production</i>
1	1990 - 91	31795	-
2	1991 - 92	32215	-
3	1992 - 93	32984	-
4	1993 - 94	33741	-
5	1994 - 95	34517	-
6	1995 - 96	35324	-
7	1996 - 97	36112	-
8	1997 - 98	38102	31688
9	1998 - 99	39280	32480
10	1999 - 00	40625	33204
11	2000 - 01	40936	41515
12	2001 - 02	41710	47693
13	2002 - 03	42804	52611
14	2003 - 04	47664	39327
15	2004 - 05	54189	32704
16	2005 - 06	55921	27609
17	2006 - 07	60114	16184
18	2007 - 08	60193	17390

MEAT PRODUCTION FOR THE LAST 18 YEARS



## CHAPTER- IV

## UTILISATION OF MILK &amp; EGG

Not only the data on production of milk and egg in the selected households but the particulars of the utilisation also were collected during the survey. A brief abstract of the utilisation practice is given below :

Table 4.1 : Utilization of Milk

<i>Items</i>	<i>Season</i>			<i>Total</i>
	<i>Summer</i>	<i>Rainy</i>	<i>Winter</i>	
Milk produced in the selected households (Kg.)	25588	23736	22905	72229
Quantity Sold (Kg.)	20487	18871	15631	54989
Average rate of Selling (Rs./Kg.)	15	15.75	15.45	15.4
Converted into Milk Products (Kg.)	786	1064	861	2711
Consumed at home (Kg.)	4315	3801	6413	14529



**Table 4.2 : Utilisation of Eggs**

<i>Items</i>	<i>Season</i>			<b>Total</b>
	<i>Summer</i>	<i>Rainy</i>	<i>Winter</i>	
Egg produced in the selected house holds (Nos.)	14385	13947	11909	40241
Purchased (Nos.)	758	492	553	1803
Average rate of purchase (Rs./dozen)				
Brown	35.3	36.53	37.02	36.28
White	19.62	25.04	25.75	23.47
Sold Nos.	3000	3146	2030	8176
Average rate of Selling (Rs./dozen)				
Brown	32.84	33.75	33.66	33.42
White	15	18	22.20	18.40
Consumed at home (Nos.)	11090	10534	9415	31039
Kept for hatching (Nos.)	377	510	491	378
Damaged	37	53	51	141

**FEEDING PRACTICES :****Table 4.3 : Breedwise Consumption of Feeds**

<i>Sl. No.</i>	<i>Breed</i>	<i>Green Fodder (Kg./Animal)</i>	<i>Dry fodder (Kg./Animal)</i>	<i>Concentrate (Kg./Animal)</i>
1	Cattle : Indigenous			
	Inmilk	5.600	3.050	1.750
	Dry	3.950	2.100	1.150
	Young	2.400	1.050	0.375
2	Cattle : Crossbreed			
	Inmilk	8.650	4.100	3.200
	Dry	5.200	3.050	1.800
	Young	2.800	1.700	0.700
3	Buffalo :			
	Inmilk	8.650	4.200	3.350
	Dry	5.000	3.250	2.100
	Young	2.650	1.350	0.800
4	Goat :			
	Inmilk			
	Young	1.750	...	0.440
		0.700	...	0.300

**Table 4.4 : Production of Dung and its Utilisation****Table 4.4 : Production of Dung and its Utilisation**

Sl.No	Items / Particulars	Summer	Rainy	Winter	Overall
1	Total No. of animals observed	3802	4027	3918	11747
2	Total Dung Collected ( Kg )	36200	36833	38500	111533
3	Average quantity of dung/animal/ day (Kg)	9.391	9.146	9.826	9.454
4	Dung utilised for dung cake ( % )	0.21	0.20	0.10	0.17
5	Dung utilised for Mannure ( % )	76.03	75.06	72.64	74.58
6	Dung utilised for other purpose (%)	23.76	24.74	27.26	25.25

## APPENDIX

**Table A. 1 : Per capita per day availability of milk**

<i>Year</i>	<i>Cow milk (gm)</i>	<i>Buffalo milk (gm)</i>	<i>Goat milk (gm)</i>	<i>Total milk (gm)</i>	<i>Human Population (lakh)*</i>
2006-07	163	2	7	172	336
2007-08	171	2	7	180	340

**Table A. 2 : Per capita availability of egg per annum**

<i>Year</i>	<i>Human Population (lakh)*</i>	<i>Total Egg production (Millions)</i>	<i>Per capita availability per year</i>
2006-07	336	1199	36
2007-08	340	1379	40

\*Projected Figure

**Table A. 3 : Per capita consumption of egg per year**

<i>Year</i>	<i>Human Population (lakh)</i>	<i>Total Egg Production (Millions)</i>	<i>Import (Millions)</i>	<i>Export (Millions)</i>	<i>Total availability (Millions)</i>	<i>Per capita Consumption per year (Nos.)</i>
2006-07	336	1199	1044	Nil	2243	61
2007-08	340	1379	1009	9	2379	70

**Table A. 4: Per capita per day availability of meat**

Year	Human Population (lakh)*	Production of meat (in Million Tonnes)			Per capita availability per day (gm)
		Animal (Authorised Sector)	Poultry	Total	
2006-07	336	59997	16184	76181	17.62
2007-08	340	60193	17390	77583	18.75

\*Projected figure

\*The percapita availability has been worked out on the presumption that total meat production in the state is thrice the production in the authorised sector.

**Table A. 5: Percentage of animals in milk according to order of lactation**

Year	Breed	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup> & above	Total
2007-08	Cow ND	14.95	36.30	34.56	14.19	100.00
	Cow CB	9.66	30.65	32.85	26.84	100.00
	Buffalo	4.55	37.88	36.36	21.3	100.00

**Table A. 6: Percentage of Animals according to stages of lactation**

Year	Breed	Less than 3 months	3 to 5 months	6 to 9 months	10 months & above	Total
2007-08	Cow ND	32.62	38.25	22.33	6.80	100.00
	Cow CB	26.90	43.08	24.12	5.91	100.00
	Buffalo	18.18	33.33	34.85	13.64	100.00

Table A. 4: Per capita per day availability of meat

Year	Population (Lakh)	Production of meat (in Million Tonnes)			Per capita availability per day (gms)
		Animal (Agriculture Sector)	Poultry	Total	
2006-07	336	29997	16184	70181	17.82
2007-08	340	60193	17390	77583	18.72

\* Projected figure

\*The per capita availability has been worked out on the presumption that total meat production in the state is higher than the production in the agricultural sector.

Table A. 5: Percentage of animals in milk according to order of lactation

Year	Breed	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup> & above	Total
2007-08	Cow ND	14.95	36.30	34.58	14.19	100.00
	Cow CB	9.66	30.62	32.88	26.84	100.00
	Buffalo	4.22	37.88	36.36	21.3	100.00

Table A. 6: Percentage of Animals according to stages of lactation

Year	Breed	Less than 3 months	3 to 5 months	6 to 9 months	10 months & above	Total
2007-08	Cow ND	32.62	38.22	22.33	6.80	100.00
	Cow CB	26.90	43.08	24.12	6.90	100.00
	Buffalo	18.18	33.33	34.82	13.64	100.00

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