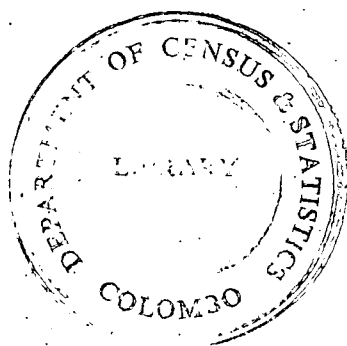




SRI LANKA

SURVEY OF MILK PRODUCTION 1986/87



Gampaha District

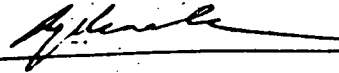
**DEPARTMENT OF CENSUS AND STATISTICS
MINISTRY OF PLAN IMPLEMENTATION**

PREFACE

A Pilot Survey on milk production was carried out in the Gampaha District during the month of November, 1986. The dearth of basic information related to the livestock sector in Sri Lanka and the increasing demand for reliable statistics in this field prompted the Department to conduct this survey which is expected to be carried out district by district during the next few years. The main objective of the survey was to obtain basic information such as the size and structure of the bovine population and to build up a suitable base to estimate the milk production.

This report contains mainly statistical tables pertaining to the Cattle/Buffaloe population by variety and by A.G.A. Divisions. An attempt was made to present the prevailing situation of livestock farming in the district by indicating the availability and use of essential facilities such as feed, shelter and veterinary services. It is hoped that the brief glimpse in to the difficulties encountered by the livestock farmers will be of use to planners, policy makers and researchers in this field.

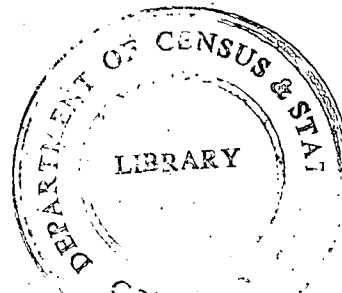
The planning and execution of this survey and the analysis of the results was done by the staff of the Agriculture Division of the Department under the advice and guidance of the Additional Director Mr. A.A.D.C. Yasasiri and Deputy Director Mr. S. Sangarapillai. The held work of the survey was successfully completed by a team of officers of the department which included Investigators from the Head Office in addition to the staff of the district statistical office. The survey work was supervised by Assistant Director, Mr. A.M.U. Dissanayake with the Senior Statisticians of the Agriculture Division. The report was prepared by Mrs. A.P. de Silva, Statistician and Miss. Mahila Perera, Statistical Officer with the assistance of Statistical Investigators, Mrs. Rani Mahendran, Mr. M.H. Gunatilleke, Miss. Hema Rodrigo, Mrs. Somilatha de Silva, Mr. Mayadunne and Clerks Mrs. G. Krishnakanthi and Mrs. Tekla Mahindadasa. The printing of this report was done by the staff of the Printing Division under the direction of the Assistant Director, Mr. K. Siripala.



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INTRODUCTION

Milk is the most wholesome food commodity which is an absolute necessity for the growing children while it is a major source of vital nutrients for the adolescents. The recent consumption surveys reveal that the monthly demand for milk is about 13.5 million litres. The National Milk Board with its island wide network of collection centres collected about 67.5 million litres of milk during the year 1985 while the government had spent more than 700 million rupees to import milk powder and other dairy products. The demand for milk is steadily increasing with the population growth and with increasing nutritional awareness among people. Hence an urgent need to intensify dairy farming.

In Sri Lanka, large scale cattle breeding is not a common feature and mostly livestock rearing is done in conjunction with food crops cultivation as a secondary activity by small farmers where the cattle provides a supplementary source of income. Anyhow cattle breeding seems to be a worthwhile enterprise for the landless labourers in the coconut estates. Hence development strategies on cattle rearing and dairy farming will have a favourable impact on the living standards of the small farmers and land-less labourers.

The importance of expansion and improvements in livestock development is strongly felt, and both government and private organizations have embarked on many a laudable project to strengthen and promote cattle breeding during the recent past. Due to dearth of complete and reliable statistics on cattle population and milk production, planners, policy makers and researchers are confronted with a serious constraint and as a result the development programmes invariably ends up for short of their expected goal.

The Department of Census & Statistics has been engaged in the collection of data pertaining to the livestock population and dairy products from early 1950's. But these are limited to subjective estimates provided by the field officers which are of unknown reliability. Since these annual estimates had proved to be unrealistic, the department felt the necessity to conduct district-wise surveys to assess the situation. Hence this pilot survey was carried out in the Gampaha district during the month of November 1986 where detail information about the Neat Cattle & Buffaloes of different varieties were collected. Special emphasis was laid on the cows milked during the reference period since the main objective of the survey was to estimate the milk production. Hence detail information was sought from this category. The reasons for not taking milk when the cows have the potential to produce milk was also investigated so as to provide useful guide lines to policy planners interested in boosting milk production.

Factors which influence the milk production such as the feed given to the milking cows, use of veterinary services and the availability of marketing channels to sell dairy products was also investigated. An attempt was also made to gather information on income, labour, other agricultural activities of the operator's household and major problems faced by the farmers.

2. OBJECTIVES OF THE SURVEY

The main objectives of the survey are:

- (a) To collect comprehensive data on the composition of cattle/buffaloe population by varieties viz. local, Indian cross and European cross.
- (b) To build up a suitable base to estimate the milk production of different varieties of cattle/buffaloes.
- (c) To identify the problems/constraints faced by livestock operators which will be useful for policy planning and research on this sector.

3. CONCEPTS AND DEFINITIONS

LIVESTOCK OPERATOR

Livestock operator is a person responsible for the management of livestock irrespective of the ownership. Here only Neat Cattle and Buffaloes are considered as livestock. The operator may himself tend to the livestock or he may not do any physical labour at all but only direct day to day operations.

LIVESTOCK HOLDING

Livestock holding is the herd of animals managed by the operator. The holding may consist of one or more cattle/buffaloes.

4. COVERAGE

The survey covered all the A.G.A. divisions in the Gampaha district.

5. REFERENCE PERIOD

The day prior to the Interviewer's visit was considered as the reference period for all purposes except for income and veterinary services for which the year ending in October, 1986 and the last three months prior to the survey were used as respective reference periods.

6. SAMPLE DESIGN

A single stage PPS (Probability Proportional to size) sampling design was adopted in the selection of the sampling units for this survey. Census Blocks formed at the 1981 Census of Population were considered as sampling units, and the cattle and buffaloe population estimated by the 1982 Census of Agriculture was used as sizes for the determination of the sample. The thirteen A.G.A. divisions of the district were treated as thirteen

administrative strata. Hundred and ten census blocks was selected from the small holdings sector which included all the eighteen census blocks with more than 100 cattle/buffaloe as recorded at the 1982 Census of Agriculture. Eighty two sampling units was selected from the Census blocks with size less than 100 and these were allocated among the different strata according to the proportion of cattle/buffaloe population in them.

Ten Sampling units was selected from the zero blocks (census blocks where no livestock holdings were reported at the '82 Census of Agriculture). Out of the 368 estates recorded in the Gampaha district eighteen estates were found to be having fifty or more animals according to the Agriculture Census and they were absorbed into the sample with certainty while 2% of the remaining estates were selected following a similar method as done for the small holdings. Altogether the sample comprised of 110 census blocks from the small holdings sector and 25 estates from the estate sector. All the census blocks selected for the sample were completely enumerated.

7. ESTIMATION PROCEDURE

The 13 A.G.A. divisions were taken as administrative strata and within a stratum a further segregation was done by sub stratification according to small holdings and estates. The size measures used at the selection of sampling units were applied to individual estimates of a characteristic computed from the survey data to obtain estimates at sub strata level.

Suppose Y is the characteristic to be estimated. Y can be the number of milking cows, other cows, bulls etc. in the small holdings sector of a particular A.G.A. division. The estimate of Y for the whole A.G.A. division is given by,

$$\hat{Y} = \hat{Y}_{sb} + Y_{cb} + \hat{Y}_{zb}$$

where

\hat{Y}_{sb} = Component of \hat{Y} estimated from the sample of blocks.

Y_{cb} = Component of \hat{Y} derived from the blocks selected with certainty.

\hat{Y}_{zb} = Component of \hat{Y} estimated from the sample of zero blocks.

\hat{Y}_{ij} = Value of characteristic Y in the j^{th} household of the i^{th} block.

\hat{Y}_i = Value of characteristic Y in the i^{th} block.

$$\hat{Y}_{sb} = \frac{M}{m} \sum_{i=1}^m Y_i / MP_i$$

Where P_i is the probability of selecting i^{th} block and m is the number of blocks selected in the A.G.A. Division.

$$\hat{Y}_i = \sum_{j=1}^{n_i} \hat{Y}_{ij} \left\{ \frac{N_i}{n_i} \right\} \text{ where } n_i \text{ is the number of households responded in the } i^{\text{th}} \text{ the block and } N_i \text{ is the total number of households in the } i^{\text{th}} \text{ block.}$$

$$Y_{sb} = \frac{1}{m} \sum_{i=1}^m \frac{1}{P_i} \sum_{j=1}^{n_i} Y_{ij} \left\{ \frac{N_i}{n_i} \right\} \text{ Where } \frac{N_i}{n_i} \text{ is the correction factor for non-response in the } i^{\text{th}} \text{ block.}$$

$$= \frac{1}{m} \sum_{i=1}^m \frac{N_i}{n_i} \frac{1}{P_i} \sum_{j=1}^{n_i} Y_{ij}$$

$$= \frac{S}{m} \sum_{i=1}^m \frac{N_i}{n_i} \frac{1}{S_i} \sum_{j=1}^{n_i} Y_{ij} \text{ where } P_i = \frac{S_i}{S}$$

S_i = Size of the i^{th} block in the number of cattle and buffaloes in the i^{th} block according to the census of Agriculture 1982.

S = (Total No. of Cattel + Buffaloes in the small holdings) -
(Total No. of Cattle + Buffaloes in the blocks selected with certainty)

According to the '82 Census of Agriculture.

Y_{cb} = Sum of the values of Y from all the blocks selected with certainty.

$$\hat{Y}_{zb} = N_z \left[\sum_{z=1}^{10} Y_z / 10 \right]$$

where Y_z = Value of y for the z^{th} zero block selected for the sample

$$\left(= \sum_{z=1}^{n_z} Y_{zj} \right) \text{ where } n_z \text{ is the no. of households in the } z^{\text{th}} \text{ block}$$

N_z = No. of zero blocks in the A.G.A. division.

Livestock population were estimated for the small holdings sector at A.G.A. division level and the estate sector at district level. Similar method of computation was followed for the estate sector too.

In the case of daily average milk production per cow a weighted average of different varieties of cattle/buffaloe was worked out.

If the daily average milk production per cow is \bar{X} for the A.G.A. division, it is given by,

$$\bar{X} = \frac{1}{n} (n_L \bar{X}_L + n_I \bar{X}_I + n_E \bar{X}_E)$$

Where

where \bar{X}_L = Average milk production per cow (local).

\bar{X}_I = Average milk production per cow (Indian cross).

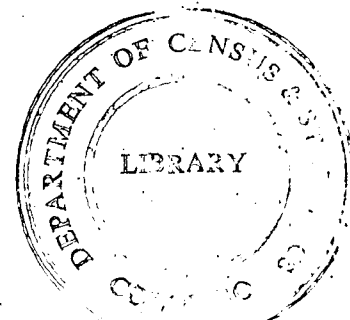
\bar{X}_E = Average milk production per cow (European cross).

n_L = No. of cows (local) milked at present.

n_I = No. of cows (Indian cross) milked at present.

n_E = No. of cows (European cross) milked at present.

n = $n_L + n_I + n_E$



8. THE SURVEY QUESTIONNAIRE

The questionnaire contained fifteen sections where the first two parts are for the identification data of the operator while the other thirteen parts were designed to collect detail information about his herd, the facilities available for dairy farming and the problems and hardships encountered by him. The format of the questionnaire is given in the appendix of this report.

The main features of the questionnaire are described below.

Question 3 was designed to collect the complete break down of the composition of cattle and buffaloe population of the district. For instance, milch cows were classified into four mutually exclusive categories viz. cows milked at present, cows not milked but producing milk at present, dry cows and pregnant heifers. The intention was to get the proportion of animals who actually produce milk out of the total number kept for that purpose. Data was also collected for bulls, heifers and calves according to their variety group namely Local, Indian cross and European cross.

Question four dealt with the milking cows only and detail information was sought in respect of each animal such as its variety, daily milk production, age and birth order of calf and lactation period of previous calving. Data was also collected about the daily collection, distribution and sale of liquid milk and other dairy products in questions five and six. Question seven deals with the types and quantity of feed supplied to the cows milking at present. It was intended to study the relationship of yield with feed of different varieties of cows.

An attempt was made in question eight to get some information about the labour force engaged in dairy farming. The reasons for not taking milk from the cows which have the ability to produce milk is investigated in question nine. Question ten was designed to assess the monetary benefits by comparing the income generated by cattle breeding with the other sources of income.

The aspect of shelter is checked in question eleven by collecting data on the availability and nature of cattle sheds. The awareness and use of veterinary services are investigated in questions twelve and thirteen. Further the question of easy accessibility is also probed to ascertain the possibility of getting prompt attention at a crucial hour.

It is observed that most of the dairy farmers are engaged in other agricultural activities such as cultivation of food crops and rearing other kinds of livestock or poultry. In question fourteen information was sought on these agricultural activities of the operator's household while the availability of grazing land was also checked.

Dairy production is the main objective of cattle breeding and it is essential to spotlight the constraints which hinder further expansions in this sector. It is expected to identify the operators' problems in question fifteen so that the responsible authorities can explore ways and means of overcoming them.

9. DATA COLLECTION PROCEDURE

Field work of the survey was carried out during the month of November 1986. Trained Statistical Investigators were used as enumerators in this survey and each Investigator was assigned at most five census blocks. They visited each and every household in the selected census blocks and estates. Their primary task was to identify the livestock operators during these visits. There were cases where more than one livestock operator was found in a household. A questionnaire was completed for each of these operators. The inquiries were formulated in such a manner so as to enable the enumerator to cross check the data supplied by the operator in respect of the most important factors.

Statisticians and Statistical Officers of the Agriculture Division were appointed as Supervisors and intensive supervision was carried out in at least one block out of the number of census blocks assigned to an enumerator. The supervisor visited several households within a selected block and perfected at least one questionnaire to check the accuracy of the information collected by the enumerator.

10. ANALYSIS OF SURVEY RESULTS

1544 cattle/buffaloe operators were canvassed by trained investigators throughout the district during the survey. The information gathered were used to estimate the cattle/buffaloe population and milk production. In addition this information helped to study the problems, aspirations and grievances harboured by these operators. Several statistical tables were prepared on the ancilliary information which will give an opportunity to get a realistic picture about many aspects related to Dairy farming and Cattle breeding which may have escaped the attention of relevant authorities.

10.1 BOVINE POPULATION

The total bovine population for the Gampaha district was estimated as 101,424 of which neat cattle constituted 73 percent while buffalo population accounted for 27 percent. Out of the total population of 73,749 neat cattle 11,315 or 15.3 percent were cows milked during the survey period. In comparison only 180 or 0.65 percent of the total buffalo population fell into the category of cows milked showing clearly that buffalo rearing is mostly carried out for agricultural and other uses in this district. The census of agriculture carried out in 1982 indicated similar structural pattern in the bovine population. It revealed that 71% of the total bovine population were neat cattle and 17.5% of this number fell into the category of milking cows. But in the case of buffaloes which accounted for 29 percent of the total bovine population in the district, 2.4 percent were considered as milking cows at present. The survey data indicate that the percentage of milking cows at present in the case of buffaloes is still diminishing in this area.

10.1 (a) Neat Cattle

The neat cattle population is concentrated in six A.G.A. divisions where Divulapitiya takes a predominant place with the highest number of cattle. Minuwangoda, Mirigama and Katana are also popular areas for cattle breeding.

The total neat cattle population comprises of 36% milch cows, 5% other cows, 22% bulls, 12% heifers and 23% calves (table 1). 95% of these neat cattle are found in the small holdings sector while 5% are accounted by the estate sector comprising mainly of coconut estates.

10.1 (b) Buffaloes

Gampaha A.G.A. division takes the lead in rearing buffaloes while Divulapitiya and Weke also have achieved prominence by recording more than 4000 heads each. It is obvious that milking of buffaloes is a very rare activity in this district where only a few A.G.A. divisions have recorded milking cows which is also very small in number. Buffaloes are kept primarily for field work such as ploughing and threshing and to be used for the tile industry which is quite a popular economic activity in this district.

The total buffalo population comprises of 17% milch cows 24% other cows, 41% bulls, 5% heifers and 10% calves (table 3). 98% of buffalo population are found in the small holdings sector while 2% are accounted by the estate sector.

10.2 MILK PRODUCTION

The average milk production of a milking cow is influenced by factors such as the variety or breed of the cow, type and amount of feed supplied, climatic conditions, birth order of the calf, duration and point of lactation etc. Variety or breed of the cow is considered to be one of the major variables which determine the yield and hence it was thought a worthwhile study to be included in the survey. A significant difference in the yield can be distinguished between the varieties.

10.2 (a) Neat Cattle

The different breeds of neat cattle were classified under three broad categories viz. Local, Indian cross and European cross according to their origin. The average daily milk production per cow in litres are 1.5, 3.3 and 3.2 in respect of the varieties - Local, Indian cross and European cross respectively. The percentage contribution of the above three varieties to the population of milking cows at present are 58%, 5% and 37% respectively. The total daily milk production is estimated as 24,088 litres in the Gampaha district.

10.2 (b) Buffaloe

Local and Indian Cross are the two distinct varieties available in the case of buffaloes. The daily average milk production records a remarkable variation according to the variety. The population of milking cows at present comprises of 1% of local cows and 99% cows of Indian origin. The average daily milk production per cow in litres are 2 and 3.9 in respect of the varieties - Local and Indian cows. The total daily milk production is estimated as 889 litres in the Gampaha district.

10.3 DISTRIBUTION OF LIVESTOCK

Divulapitiya A.G.A. division takes the lead in rearing neat cattle as well as buffaloes. It is followed by Minuwangoda and Attanagalla A.G.A. divisions. Gampaha, Mirigama and Weke are also quite favourable areas for this industry while Ja-ela, Kelaniya, Negombo and Wattala A.G.A. divisions contribute in a rather small way. The agro ecological pattern as well as the availability of grazing land, cropping patterns and other economic activities of the peasantry are the main factors which determine the distribution of livestock. Divulapitiya with its vast areas of coconut land provides adequate amounts of grazing land while the nature of work of the rural folk which is mainly cultivation requires the use of cattle for both labour and manure.

10.4 DISTRIBUTION OF MILK

The total milk production in the Gampaha district is estimated at 25,885 litres per day. 46% of this production according to the survey is sold to milk collecting centres where the major supply comes from Divulapitiya and Mirigama A.G.A. divisions. 28% of the milk production is sold to private individuals or boutiques while the remaining 26% is utilized for home consumption.

10.5 DISTRIBUTION OF LABOUR FORCE BY SEX

It is apparent that unpaid family members constitute the back bone of the labour force engaged in rearing livestock in the Gampaha district where more than 93% of the operators are small holders. Out of the 94% of the labour force falling into the category of unpaid workers 85% are males, 12 are females and 3% are children. Only 6.2% of the workers were paid for their services and 86% of the paid workers were males, 4% females and 10% children.

The composition of labour force by sex constituted of 85% males, 12% females. Children assisting their parents to ease the household burden claimed the remaining 3% of the work force. The average number of hours spent daily on chores related to cattle breeding varies with sex as well as the category of worker. It is 4.3 hrs./day for paid male workers and 3.1 hrs./day for unpaid male workers. Similarly it is estimated as 3.1 hrs./day and 2.4 hrs./day for paid and unpaid female workers. Children contributed by working almost 4 hrs. per day.

10.6 INCOME GENERATED BY DAIRY PRODUCTION

Dairy production which includes milk products such as curd, yoghurt and ice cream in addition to fresh milk is a steady source which can generate substantial monetary benefits if properly carried out. But the survey reveals that the majority of the dairy farmers in the Gampaha district have not considered this avenue as a worth while enterprise. A meagre 5% of the dairy farmers claim that it is their main source of income while it provides an additional income to 52% of them. 42% of the dairy farmers have stated that they gained no monetary benefit at all.

10.7 NATURE OF CATTLE SHEDS

A special feature that was observed is that a shed was found to be available very rarely for male species and in the case of buffaloes it is difficult to find even for cows, 55% of the livestock holdings had no shed at all while 28% had a shed of a temporary nature. Only 16% of the holdings were recorded as providing permanent shelter to the animals.

10.8 VETERINARY SERVICES

Veterinary services are a vital factor which influence cattle breeding to a great extent. The small holder who is largely responsible for the cattle and buffalo rearing in this country should be enlightened to the preventive and curative aspects of veterinary care. Further he should be advised about the benefits he can gain by the extension programmes to educate the small farmer on improved varieties of fodder and other related practices required to get maximum potential of the available resources.

It is an eye opener and should attract the attention of the authorities responsible to observe that 86% of the operators in the Gampaha district are aware of veterinary services, but only 9% have used at least one of the veterinary services - treatment, vaccination, pregnancy diagnosis, artificial insemination extension programs during the three months period preceding the survey. Although the operators seem to be reluctant to seek the services of the veterinarians, the veterinary officers are located in close proximity and are easily accessible to the majority of operators. 57% of the operators live within a radius of 5 miles to a veterinary office while only 4% of the operators claim that they have to travel more than 10 miles to reach the nearest veterinary office. It is regrettable to observe that even under such favourable conditions the majority of the livestock operators prefer traditional methods to modern technology. Lack of co-ordination between the veterinary staff and the livestock operators may be one of the probable reason for this situation. The relevant authority should make an attempt to take remedial steps early so as to revive a much needed industry.

10.9 OTHER AGRICULTURAL ACTIVITIES

It is seen that the majority of the cattle breeders are engaged in some other agricultural activities in addition to rearing of cattle and buffalo. It is obvious that the small holder household finds it economical to have another agricultural activity in conjunction with cattle breeding since the monetary income derived from it will only supplement the family budget. Only 8% of the operator households are recorded as not having any other agricultural activity whereas 27% claimed to be engaged in both cultivation and animal husbandry while 65% were engaged in either cultivation or some other kind of animal husbandry. The most popular other agricultural activities were found to be the cultivation of paddy, coconut and raising poultry.

10.10 ANIMAL FEED

The survey reveals that the cattle breeders of the Gampaha district largely depend on green fodder for feeding even the milking cows. It was observed that while green fodder was the most popular type of feed, poonac and rice bran is also widely used by a fair proportion of operators. Feed concentrates such as compound feed and mineral mix are very seldomly given even to the milking cows of improved varieties such as Indian cross and European cross. They are hardly given to the local cows.

As the quality of animal feed has a direct impact on milk production and since the small holder is not in a position to afford expensive feed concentrates it is essential to develop our pasture lands to increase the quantity and quality of green fodder. If green fodder is available in abundance for free grazing which is the common practice in this district and if poonac and rice bran can be supplied at a reasonable price a higher yield can be expected specially from the improved varieties.

10.11 MILKING COWS NOT MILKED

It is observed that 7.6% of milch cows in the category 'Neat Cattle' and 14.4% of milch cows in the category 'Buffaloes' are not milked although they have the ability to produce milk. 15% of the operators who have such animals think that their animals do not produce sufficient quantity of milk to make it a worthwhile exercise while 13% of the operators complain of non-availability of marketing facilities for fresh milk. Another 13% of these operators said that lack labour facilities for milking and majority of them i.e. about 54% give other reasons such as lack of feed, no practice of taking buffalo milk, use of these cows as draught animals and the untimely death of the calf etc.

10.12 MAJOR CONSTRAINTS

Dairy production is the most important output of cattle rearing and hence it was thought appropriate to investigate the obstacles encountered by the operators which prevent them in expanding it. 25% of the cattle breeders have disclosed that the lack of land is the main difficulty which hindered further expansion. As the major portion of our cattle breeders fall into the categories of small farmers and landless labourers and since the

main feed they supply to their animals is green fodder the pressure on land creates a genuine problem for dairy development. Lack of capital to set up a dairy farm is another constraint which deprived 15% of the operators further improvements in this activity. Non availability of Hi bred animals and the lack of labour are also major constraints which discouraged operators to a certain extent.

LIMITATIONS OF THE SURVEY

The number of sampling units per A.G.A. division was allocated proportionately to the livestock population recorded at the Census of Agriculture, 1982. Ja-ela, Kelaniya, Negombo, and Wattala A.G.A. divisions recorded very low proportion of livestock population with respect to the total for the district and hence the number of sampling units allocated for them were 2, 1, 3 and 3 respectively. As such, it is not possible to get estimates for each of those A.G.A. divisions, and hence they were lumped together and considered as one stratum.

Only a limited number of zero blocks was selected for the survey. But it was observed that most of the selected zero blocks had a reasonably high population of cattle and buffaloes and a significant difference between the selected zero blocks and the others could not be seen as expected. Since there is a time span of 4 years after the Census of Agriculture was conducted, there may have been a considerable change on livestock rearing in the zero blocks too so that they no longer can be categorized as blocks with no such activity. Hence a larger sample is required to study the situation in the zero blocks.

Table 1
NEAT CATTLE POPULATION BY VARIETY AND BY A.G.A. DIVISIONS (SMALL HOLDING SECTOR)

A.G.A. Division	Milch Cows					Other Cows					Heifers not Pregnant					Stud Bulls				
	L	I	E	Total	%	L	I	E	Total	%	L	I	E	Total	%	L	I	E	Total	%
Attanagalla	1426	165	530	2121	35	140	-	36	176	3	860	135	341	1336	23	21	-	6	27	-
Biyagama	613	30	764	1407	27	-	-	-	-	-	151	10	1573	1734	34	-	-	9	9	-
Divulapitiya	3512	506	1100	5118	40	477	22	48	547	4	873	132	187	1192	9	21	-	7	28	-
Gampaha	1580	104	268	1952	36	254	-	45	299	5	224	6	25	255	5	45	-	6	51	1
Katana	2407	-	734	3141	46	193	-	-	193	3	695	8	31	734	10	172	-	8	180	2
Mahara	775	84	393	1252	34	48	-	107	155	4	206	10	38	254	8	02	-	10	12	-
Minuwangoda	2131	267	890	3288	33	878	171	136	1185	12	822	220	151	1193	13	435	-	6	441	4
Mirigama	1300	176	833	2309	37	633	35	21	689	11	263	22	143	428	7	35	1	41	77	1
Weke	1735	-	585	2320	38	157	-	21	178	3	515	47	93	655	11	-	-	4	4	-
Ja-Ela	1919	35	652	2606	33	150	-	-	150	2	1001	13	24	1038	13	-	-	35	35	-
Kelaniya																				
Negambo																				
Wattala																				
District Total	17398	1367	6749	25514	36	2930	228	414	3572	5	5610	603	2606	8819	13	731	1	132	864	1

L = Local Cattle I = Indian Cross E = European Cross

Table 1 (Contd.)
NEAT CATTLE POPULATION BY VARIETY AND BY A.G.A. DIVISIONS (SMALL HOLDING SECTOR)

A.G.A. Division	Other Bulls					Male Calves					Female Calves					Total Neat Cattle				
	L	I	E	Total	%	L	I	E	Total	%	L	I	E	Total	%	L	I	E	Total	%
Attanagalla	1273	93	164	1530	26	261	57	71	389	6	220	71	128	419	7	4201	521	1276	5998	100
Biyagama	704	-	49	753	15	525	1	119	645	12	3	29	578	610	12	1996	70	3092	5158	100
Divulapitiya	2422	199	378	2999	24	1039	43	373	1455	12	808	206	339	1353	11	9152	1108	2432	12692	100
Gampaha	1218	300	185	1703	31	495	60	20	575	10	389	60	191	640	12	4205	530	740	5475	100
Katana	452	148	93	693	10	882	-	265	1147	17	602	-	195	797	12	5403	156	1326	6885	100
Mahara	779	23	42	844	23	602	-	88	690	19	228	91	120	439	13	2640	208	798	3646	100
Minuwangoda	1434	193	133	1760	17	722	30	126	878	8	675	101	588	1364	13	7097	982	2030	10109	100
Mirigama	1215	69	28	1312	21	593	90	107	790	12	290	174	149	613	11	4329	567	1322	6218	100
Weke	1436	-	81	1517	25	491	-	129	620	10	639	-	161	800	13	4973	47	1074	6094	100
Ja-Ela	1519	12	181	1712	22	1025	18	325	1368	17	659	12	311	982	13	6273	90	1528	7891	100
Kelaniya																				
Negambo																				
Wattala																				
District Total	12,452	1037	1334	14823	21	6635	299	1623	8557	12	4513	744	2760	8017	12	50269	4279	15618	70166	100

L = Local Cattle I = Indian Cross E = European Cross

Table 1.1
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - ATTANAGALLA A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	1426	67	165	8	530	25	2121	100
Other Cows	140	80	-	-	36	20	176	100
Heifers (not pregnant)	860	64	135	10	341	26	1336	100
Stud Bulls	21	78	-	-	6	22	27	100
Other Bulls	1273	83	93	6	164	11	1530	100
Male Calves	261	67	57	15	71	18	389	100
Female Calves	220	53	71	17	128	30	419	100
Total	4201	70	521	9	1276	21	5998	100

Table 1.2
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - BIYAGAMA A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	613	44	30	2	764	54	1407	100
Other Cows	-	-	-	-	-	-	-	-
Heifers (not pregnant)	151	9	10	1	1573	90	1734	100
Stud Bulls	-	-	-	-	9	100	9	100
Other Bulls	704	93	-	-	49	7	753	100
Male Calves	525	81	01	-	119	19	645	100
Female Calves	3	1	29	5	578	94	610	100
Total	1996	39	70	1	3092	60	5158	100

Table 1.3
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - DIVULAPITIYA A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	3512	69	506	10	1100	21	5118	100
Other Cows	477	87	22	4	48	9	547	100
Heifers (not pregnant)	873	73	132	11	187	16	1192	100
Stud Bulls	21	25	-	-	07	25	28	100
Other Bulls	2422	81	199	7	378	12	2999	100
Male Calves	1039	71	43	3	373	26	1455	100
Female Calves	808	60	206	15	339	25	1353	100
Total	9152	72	1108	9	2432	19	12692	100

Table 1.4
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - GAMPAHA A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	1580	81	104	5	268	14	1952	100
Other Cows	254	85	-	-	45	15	299	100
Heifers (not pregnant)	224	88	6	2	25	10	255	100
Stud Bulls	45	88	-	-	6	12	51	100
Other Bulls	1218	72	300	18	185	10	1703	100
Male Calves	495	86	60	11	20	3	575	100
Female Calves	389	60	60	10	191	30	640	100
Total	4205	77	530	10	740	13	5475	100

Table 1.5
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - KATANA A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	2407	77	-	-	734	23	3141	100
Other Cows	193	100	-	-	-	-	193	100
Heifers (not pregnant)	695	95	8	1	31	4	734	100
Stud Bulls	172	96	-	-	8	4	180	100
Other Bulls	452	65	148	21	93	14	693	100
Male Calves	882	77	-	-	265	23	1147	100
Female Calves	602	76	-	-	195	24	797	100
Total	5403	78	156	02	1326	20	6885	100

Table 1.6
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - MAHARA A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	775	62	84	7	393	31	1252	100
Other Cows	48	31	-	-	107	69	155	100
Heifers(not pregnant)	206	81	10	4	38	15	254	100
Stud Bulls	02	17	-	-	10	83	12	100
Other Bulls	779	92	23	3	42	5	844	100
Male Calves	602	87	-	-	88	13	690	100
Female Calves	228	52	91	21	120	27	439	100
Total	2640	72	208	6	798	22	3646	100

Table 1.7
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - MINUWANGODA A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	2131	65	267	08	890	27	3288	100
Other Cows	878	74	171	14	136	12	1185	100
Heifers (not pregnant)	822	69	220	18	151	13	1193	100
Stud Bulls	435	99	-	-	6	1	441	100
Other Bulls	1434	81	193	11	133	08	1760	100
Male Calves	722	82	230	03	126	15	878	100
Female Calves	675	49	101	8	588	43	1364	100
Total	7097	70	982	10	2030	20	10109	100

Table 1.8
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - MIRIGAMA A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	1300	56	176	8	833	36	2309	100
Other Cows	633	92	35	5	21	3	689	100
Heifers (not pregnant)	263	62	22	5	143	33	428	100
Stud Bulls	35	45	1	1	41	54	77	100
Other Bulls	1215	93	69	5	28	2	1312	100
Male Calves	593	75	90	11	107	14	790	100
Female Calves	290	48	174	28	149	24	613	100
Total	4329	70	567	10	1322	20	6218	100

Table 1.9
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) – WEKE A.G.A. DIVISION

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	1735	75	-	-	585	25	2320	100
Other Cows	157	88	-	-	21	12	178	-
Heifers (not pregnant)	515	79	47	7	93	14	655	100
Stud Bulls	-	-	-	-	4	-	4	100
Other Bulls	1436	95	-	-	81	05	1517	100
Male Calves	491	79	-	12	129	21	620	100
Female Calves	639	80	-	15	161	20	800	100
Total	4973	82	47	1	1074	17	6094	100

Table 1.10
NEAT CATTLE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR)
A.G.A. DIVISIONS - KELANIYA, JA-ELA, WATTALA, NEGOMBO.

Category	Variety of Cattle							
	Local		Indian Cross		European Cross		Total	
	Number	%	Number	%	Number	%	Number	%
Milch Cows	1919	74	35	1	652	25	2606	100
Other Cows	150	100	-	-	-	-	150	100
Heifers (not pregnant)	1001	96	13	2	24	2	1038	100
Stud Bulls	-	-	-	-	35	-	35	100
Other Bulls	1519	89	12	1	181	10	1712	100
Male Calves	1025	75	18	1	325	24	1368	100
Female Calves	659	67	12	1	311	32	982	100
Total	6273	79	90	2	1528	19	7891	100

Table 2
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY A.G.A. DIVISION
(SMALL HOLDING SECTOR)

A.G.A. Division	Cows Milking at Present					Cows not Milked but Producing Milk at Present				
	Local	Indian	European	Total	%	Local	Indian	European	Total	%
Attanagalla	319	94	167	580	27	88	-	8	96	5
Biyagama	528	29	593	1150	82	37	-	10	47	3
Divulapitiya	799	215	422	1436	28	397	76	117	590	12
Gampaha	743	82	58	883	45	85	-	28	113	6
Katana	875	-	305	1180	38	422	-	63	485	15
Mahara	336	-	101	437	35	38	-	10	48	4
Minuwangoda	578	30	644	1252	38	151	-	35	186	6
Mirigama	518	76	551	1145	50	75	21	6	102	4
Weke	446	-	261	707	30	230	-	4	234	10
Ja-Ela	1261	35	572	1868	72	10	-	-	10	-
Kelaniya										
Negambo										
Wattala										
District Total	6403	561	3674	10638	42	1533	97	281	1911	7

Table 2 (Contd.)
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY A.G.A. DIVISION
(SMALL HOLDING SECTOR)

A.G.A. Division	Dry Cows and Pregnant Heifers					Total Milch Cows				
	Local	Indian	European	Total	%	Local	Indian	European	Total	%
Attanagalla	1019	71	355	1445	68	1426	165	530	2121	100
Biyagama	48	1	161	210	15	613	30	764	1407	100
Divulapitiya	2316	215	561	3092	60	3512	506	1100	5118	100
Gampaha	752	22	182	956	49	1580	104	268	1952	100
Katana	1110	-	366	1476	47	2407	-	734	3141	100
Mahara	401	84	282	767	61	775	84	393	1252	100
Minuwangoda	1402	237	211	1850	56	2131	267	890	3288	100
Mirigama	707	79	276	1062	46	1300	176	833	2309	100
Weke	1059	-	320	1379	60	1735	-	585	2320	100
Ja-Ela	648	-	80	728	28	1919	35	652	2606	100
Kelaniya										
Negambo										
Wattala										
District Total	9462	709	2794	12965	51	17398	1367	6749	25514	100

Table 2.1
**POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY
 AND BY CATEGORY - ATTANAGALLA A.G.A. DIVISION
 (SMALL HOLDING SECTOR)**

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows Milked at present	319	55	94	16	167	29	580	100
Cows not milked but producing milk at present	88	92	-	-	8	8	96	100
Dry Cows and Pregnant Heifers	1019	71	71	5	355	24	1445	100
Total Milch Cows	1426	67	165	8	530	25	2121	100

Table 2.2
**POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR)
 -BIYAGAMA A.G.A. DIVISION-**

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	528	46	29	3	593	51	1150	100
Cows not milked but producing milk at present	37	79	-	-	10	21	47	100
Dry cows and pregnant heifers	48	23	1	-	161	77	210	100
Total milch cows	613	44	30	2	764	54	1407	100

Table 2.3
 POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR)
 DIVULAPITIYA A.G.A. DIVISION

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	799	56	215	15	422	29	1436	100
Cows not milked but producing milk at present	397	67	76	13	117	20	590	100
Dry cows and pregnant Heifers	2316	75	215	7	561	18	3092	100
Total milch cows	3512	69	506	10	1100	21	5118	100

Table 2.4
 POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR)
 - GAMPANA A.G.A. DIVISION

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	743	84	82	10	58	6	883	100
Cows not milked but producing milk at present	85	75	-	-	28	25	113	100
Dry cows and pregnant heifers	752	79	22	2	182	19	956	100
Total milch cows	1580	81	104	5	268	14	1952	100

Table 2.5
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR)
 - KATANA A.G.A. DIVISION

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	875	74	-	-	305	26	1180	100
Cows not milked but producing milked at present	422	87	-	-	63	13	485	100
Dry cows and pregnant heifers	1110	75	-	-	366	25	1476	100
Total milch cows	2407	77	-	-	734	23	3141	100

Table 2.6
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR)
 MAHARA A.G.A. DIVISION

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	336	77	-	-	101	23	437	100
Cows not milked but producing milk at present	38	79	-	-	10	21	48	100
Dry cows and pregnant heifers	401	52	84	11	282	37	767	100
Total milch cows	775	62	84	7	393	31	1252	100

Table 2.7
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR)
-MINUWANGODA A.G.A. DIVISION

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	578	46	30	2	644	52	1252	100
Cows not milked but producing milk at present	151	81	-	-	35	19	186	100
Dry cows and pregnant heifers	1402	76	237	13	211	11	1850	100
Total milch cows	2131	65	267	08	890	27	3288	100

Table 2.8
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR)
-MIRIGAMA A.G.A. DIVISION

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	518	45	76	7	551	48	1145	100
Cows not milked but producing milk at present	75	74	21	21	6	5	102	100
Dry cows and pregnant heifers	707	67	79	7	276	26	1062	100
Total milch cows	1300	56	176	8	833	36	2309	100

Table 2.9
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR)
 - WEKE A.G.A. DIVISION

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	446	63	-	-	261	37	707	100
Cow not milked but producing milk at present	230	98	-	-	4	2	234	100
Dry cows & pregnant heifers	1059	77	-	-	320	23	1379	100
Total milch cows	1735	75	-	-	585	25	2320	100

Table 2.10
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR)
 A.G.A. DIVISIONS - KELANIYA, JA-ELA, WATTALA, NEGOMBO.

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	1261	68	35	2	572	30	1868	100
Cows not milk but producing milk at present	10	-	-	-	-	-	10	-
Dry cows and pregnant heifers	648	89	-	-	80	11	728	100
Total milch cows	1919	73	35	2	652	25	2606	100

Table 3
 BUFFALOE POPULATION BY VARIETY AND BY A.G.A. DIVISIONS
 (SMALL HOLDING SECTOR)

A G.A. Division	Total Milch Cows				Other Cows				Heifers not Pregnant				Stud Bulls			
	L	I	Total	%	L	I	Total	%	L	I	Total	%	L	I	Total	%
Attanagalla	314	2	316	10	915	-	915	30	216	22	238	8	-	-	-	-
Biyagama	120	-	120	51	-	-	-	-	10	-	10	4	-	-	-	-
Divulapitiya	572	34	606	14	1108	-	1108	26	112	-	112	3	-	19	19	1
Gampaha	300	7	307	6	2475	-	2475	44	6	-	6	-	-	-	-	-
Katana	-	-	-	-	-	-	-	-	8	-	8	35	-	-	-	-
Mahara	1208	46	1254	37	-	-	-	-	274	-	274	8	4	-	4	-
Minuwangoda	59	14	73	5	349	-	349	22	240	-	249	16	143	-	143	9
Mirigama	580	17	597	16	813	21	834	22	327	-	327	8	-	-	-	-
Weke	562	827	1389	30	738	333	1071	23	211	14	225	6	-	1	1	-
Ja-Ela	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kelaniya	-	134	134	24	-	-	-	-	-	12	12	2	-	12	12	2
Negambo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wattala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
District Total	3715	1081	4796	18	6398	354	6752	25	1413	48	1461	5	147	32	179	1

L = Local Cattle I = Indian Cross

Table 3 (Contd.)
 BUFFALOE POPULATION BY VARIETY AND BY A.G.A. DIVISIONS
 (SMALL HOLDING SECTOR)

A.G.A. Division	Other Bulls				Male Calves				Female Calves				Total Buffaloes			
	L	I	Total	%	L	I	Total	%	L	I	Total	%	L	I	Total	%
Attanagalla	1325	-	1325	44	50	-	50	2	196	2	198	6	3016	26	3042	100
Biyagama	106	-	106	45	-	-	-	-	1	-	1	-	237	-	237	100
Divulapitiya	1607	-	1607	38	514	34	548	13	183	34	217	5	4096	121	4217	100
Gampaha	2414	22	2436	44	188	-	188	3	150	-	150	3	5533	29	5562	100
Katana	15	-	15	65	-	-	-	-	-	-	-	-	23	-	23	100
Mahara	1132	91	1223	36	320	23	343	10	297	-	297	9	3235	160	3395	100
Minuwangoda	729	14	743	46	22	14	36	2	2	-	2	-	1553	42	1595	100
Mirigama	1436	91	1527	40	248	-	248	7	241	14	255	7	3645	143	3788	100
Weke	1444	93	1537	34	158	-	158	3	156	43	199	4	3269	1311	4580	100
Ja-Ela	361	-	361	65	-	-	-	-	-	34	34	7	361	192	553	100
Kelaniya																
Negambo																
Wattala																
District Total	10569	311	10880	40	1500	71	1571	6	1226	127	1353	5	24968	2024	26992	100

L = Local Cattle I = Indian Cross

Table 3.1
BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - ATTANAGALLA A.G.A. DIVISION

Category \ Variety	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	314	99	2	1	316	100
Other Cows	915	100	-	-	915	100
Stud Bulls	-	-	-	-	-	-
Other Bulls	1325	100	-	-	1325	100
Heifers (not pregnant)	216	91	22	9	238	100
Male Calves	50	100	-	-	50	100
Female Calves	196	99	2	1	198	100
Total	3016	99	26	1	3042	100

Table 3.2
BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - BIYAGAMA A.G.A. DIVISION

Category \ Variety	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	120	100	-	-	120	100
Other Cows	-	-	-	-	-	-
Stud Bulls	-	-	-	-	-	-
Other Bulls	106	100	-	-	106	100
Heifers (not pregnant)	10	100	-	-	10	100
Male Calves	-	-	-	-	-	-
Female Calves	1	-	-	-	1	-
Total	237	100	-	-	237	100

Table 3.3
BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - DIVULAPITIYA A.G.A. DIVISION

Category \ Variety	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	572	94	34	6	606	100
Other Cows	1103	100	-	-	1103	100
Heifers (not pregnant)	112	100	-	-	112	100
Stud Bulls	-	-	19	100	19	100
Other Bulls	1607	100	-	-	1607	100
Male Calves	514	93	34	7	548	100
Female Calves	183	84	34	16	217	100
Total	4096	97	121	3	4217	100

Table 3.4
BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - GANPAHA A.G.A. DIVISION

Category \ Variety	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	300	98	7	2	307	100
Other Cows	2475	100	-	-	2475	100
Heifers (not pregnant)	6	-	-	-	6	-
Stud Bulls	-	-	-	-	-	-
Other Bulls	2414	99	22	1	2436	100
Male Calves	188	-	-	-	188	100
Female Calves	150	-	-	-	150	100
Total	5533	99	29	1	5562	100

Table 3.5
BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - KATANA A.G.A. DIVISION

Category \ Variety	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	-	-	-	-	-	-
Other Cows	-	-	-	-	-	-
Heifers (not pregnant)	8	100	-	-	8	100
Stud Bulls	-	-	-	-	-	-
Other Bulls	15	-	-	-	15	100
Male Calves	-	-	-	100	-	-
Female Calves	-	-	-	100	-	-
Total	23	100	-	-	23	100

Table 3.6
BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - MAHARA A.G.A. DIVISION

Category \ Variety	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	-	-	-	-	-	-
Other Cows	1208	96	46	04	1254	100
Heifers (not pregnant)	274	100	-	-	274	100
Stud Bulls	04	100	-	-	04	100
Other Bulls	1132	93	91	07	1223	100
Male Calves	320	93	23	07	343	100
Female Calves	297	100	-	-	297	100
Total	3235	95	160	5	3395	100

Table 3.7
 BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR) - MINUWANGODA A.G.A. DIVISION

Category \ Variety	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	59	81	14	19	73	100
Other Cows	349	100	-	-	349	100
Heifers (not pregnant)	249	100	-	-	249	100
Stud Bulls	143	100	-	-	143	100
Other Bulls	729	98	14	02	743	100
Male Calves	22	61	14	39	36	100
Female Calves	2	100	-	-	2	100
Total	1553	97	42	03	1595	100

Table 3.8
 BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR) - MIRIGAMA A.G.A. DIVISION

Category \ Variety	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	580	97	17	3	597	100
Other Cows	813	97	21	3	834	100
Heifers (not pregnant)	327	100	-	-	327	100
Stud Bulls	-	-	-	-	-	-
Other Bulls	1436	94	91	6	1527	100
Male Calves	248	100	-	-	248	100
Female Calves	241	95	14	5	255	100
Total	3645	96	143	4	3788	100

Table 3.9
BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR) - WEKE A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	562	40	827	60	1389	100
Other Cows	738	69	333	31	1071	100
Stud Bulls	-	-	1	100	1	100
Other Bulls	1444	94	93	6	1537	100
Heifers (not pregnant)	211	94	14	6	225	100
Male Calves	158	100	-	-	158	100
Female Calves	156	78	43	22	199	100
Total	3269	71	1311	29	4580	100

Table 3.10
BUFFALOE POPULATION BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR) - A.G.A. DIVISIONS KELANIYA,
 JA-ELA, WATTALA, NEGOMBO

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Milch Cows	-	-	134	-	134	100
Other Cows	-	-	-	-	-	-
Stud Bulls	-	-	12	-	12	100
Other Bulls	361	-	-	-	361	100
Heifers (not pregnant)	-	-	12	-	12	100
Male Calves	-	-	-	-	-	-
Female Calves	-	-	34	-	34	100
Total	361	-	192	-	553	100

Table 4
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY A.G.A. DIVISIONS
(SMALL HOLDING SECTOR)

A.G.A. Division	Cows Milking at Present				Cows not Milked But Producing Milk at Present				Dry Cows And Pregnant Heifers				Total Milch cows			
	L	I	Total	%	L	I	Total	%	L	I	Total	%	L	I	Total	%
Attanagalla	-	2	2	1	161	-	161	51	153	-	153	48	314	2	316	100
Biyagama	-	-	-	-	1	-	1	1	119	-	119	99	120	-	120	100
Divulapitiya	-	34	34	6	24	-	24	4	548	-	548	90	572	34	606	100
Gamapaha	-	-	-	-	-	-	-	-	300	7	307	100	300	7	307	100
Katana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mahara	-	-	-	-	167	-	167	13	1041	46	1087	87	1208	46	1254	100
Minuwangoda	-	-	-	-	-	-	-	-	59	14	73	100	59	14	73	100
Mirigama	-	-	-	-	114	14	128	21	466	3	469	79	580	17	597	100
Weke	-	43	43	3	186	21	207	15	376	763	1139	82	562	827	1389	100
Ja-Ela	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kelaniya	-	99	99	74	-	-	-	-	-	35	35	26	-	134	134	100
Negambo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wattala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
District Total	-	178	178	4	663	35	688	14	3062	868	3930	82	3715	1081	4796	100

L = Local Cattle I = Indian Cross

Table 4.1
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR)-ATTANAGALLA A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	2	100	2	100
Cows not milked but producing milk at present	161	100	-	-	161	100
Dry cows pregnant heifers	153	100	-	-	153	100
Total Milch Cows	314	99	2	1	316	100

Table 4.2
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - BIYAGAMA A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	-	-	-	-
Cows not milked but producing milk at present	1	100	-	-	1	100
Dry cows pregnant heifers	119	100	-	-	119	100
Total milch cows	120	100	-	-	120	100

Table 4.3
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - DIVULAPITIYA A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	34	100	34	100
Cows not milked but producing milk at present	24	100	-	33	24	100
Dry cows and pregnant heifers	548	100	-	1	548	100
Total milch cows	572	91	34	9	606	100

Table 4.4
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - GAMPAHA A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	-	-	-	-
Cows not milked but producing milk at present	-	-	-	-	-	-
Dry cows and pregnant heifers	300	98	7	2	307	100
Total milch cows	307	98	7	2	307	100

Table 4.5
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - KATANA A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	-	-	-	-
Cows not milked but producing milk at present	-	-	-	-	-	-
Dry cows pregnant heifers	-	-	-	-	-	-
Total milch cows	-	-	-	-	-	-

Table 4.6
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - MAHARA A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	-	-	-	-
Cows not milked but producing milk at present	167	100	-	-	167	100
Dry cows pregnant heifers	1041	96	46	04	1087	100
Total milch cows	1208	96	46	04	1254	100

Table 4.7
 POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR) - MINUWANGODA A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	100	-	-	2	100
Cows not milked but producing milk at present	-	-	-	-	-	-
Dry cows pregnant heifers	59	81	14	19	73	100
Total milch cows	-	81	14	19	75	100

Table 4.8
 POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
 (SMALL HOLDING SECTOR) - MIRIGAMA A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	-	-	-	-
Cows not milked but producing milk at present	114	89	14	11	128	100
Dry cows pregnant heifers	466	99	3	1	469	100
Total milch cows	580	97	17	3	597	100

Table 4.9
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - WEKE A.G.A. DIVISION

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	43	100	43	100
Cows not milked but producing milk at present	186	90	21	10	207	100
Dry cows & pregnant heifers	376	33	763	67	1139	100
Total milch cows	562	40	827	60	1389	100

Table 4.10
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY AND BY CATEGORY
(SMALL HOLDING SECTOR) - A.G.A. DIVISIONS - JA-ELA, KELANIYA,
WATTALA, NEGOMBO

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	-	-	99	100	99	100
Cows not milked but producing milk at present	-	-	-	-	-	-
Dry cows and pregnant heifers	-	-	35	100	35	100
Total milch cows	-	-	134	100	134	100

Table 5.1
NEAT CATTLE POPULATION BY VARIETY

(ESTATE SECTOR)

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Milch cows	385	31	77	6	768	63	1230	100
Other cows	8	13	-	-	55	87	63	100
Heifers (not pregnant)	108	38	23	8	156	54	287	100
Stud Bulls	3	33	2	23	4	44	9	100
Other Bulls	660	59	384	34	77	7	1121	100
Male Calves	98	36	24	8	154	56	276	100
Female Calves	181	30	30	5	386	65	597	100
Total	1443	40	540	15	1600	45	3583	100

Table 5.2
POPULATION OF MILCH COWS (NEAT CATTLE) BY VARIETY

(ESTATE SECTOR)

Variety Category	Local		Indian X		European X		Total	
	Number	%	Number	%	Number	%	Number	%
Cows milked at present	94	14	28	4	555	82	677	100
Cows not milked but producing milk at present	58	49	29	24	32	27	119	100
Dry cows pregnant heifers	233	54	20	5	181	41	434	100
Total milch cows	385	31	77	6	768	63	1230	100

Table 5.3
BUFFALOE POPULATION BY VARIETY

(ESTATE SECTOR)

Variety Category	Local		Indian		Total	
	Number	%	Number	%	Number	%
Milch cows	2	4	53	96	55	100
Other cows	-	-	59	100	59	100
Stud Bulls	-	-	25	100	25	100
Other Bulls	374	78	106	22	480	100
Heifers (not pregnant)	1	7	14	93	15	100
Male Calves	-	-	12	100	12	100
Female Calves	2	5	35	95	37	100
Total	379	55	304	45	683	100

Table 5.4
POPULATION OF MILCH COWS (BUFFALOES) BY VARIETY

(ESTATE SECTOR)

Variety Category	Local		Indian X		Total	
	Number	%	Number	%	Number	%
Cows milked at present	2	100	-	-	2	100
Cows not milked but producing milk at present	-	-	12	100	12	100
Dry cows pregnant heifers	-	-	41	100	41	100
Total milch cows	2	4	53	96	55	100

Table 6
DAILY MILK PRODUCTION BY TYPE AND BY A.G.A. DIVISIONS

A.G.A. Division	Cow milk estimated production		Buffaloe milk estimated production	
	Litres	%	Litres	%
Attanagalla	1,182			
	2,121	9 5	2	-
Biyagama	3,088			
	3,110	12 13	-	-
Divulapitiya	4,050	16 17	68	8
Gampaha	1,340	5	-	-
Katana	1,711	7	-	-
Mahara	1,201	5	-	-
Minuwangoda	2,475	10	4	-
Mirigama	2,600	10 11	-	-
Weke	1,233	5	89	10
Kelaniya				
Ja-Ela	5,208			
	5,185	21 22	726	82
Wattala				
Negambo				
Total	24,088			
	24,996	100	889	100

Table 6.1
**DAILY AVERAGE MILK PRODUCTION PER COW AND THE DAILY TOTAL PRODUCTION
 OF MILK BY VARIETY OF COW AND BY A.G.A. DIVISIONS**

NEAT CATTLE

UNIT - LITRES

A.G.A. Division	Local			Indian			European			Total	
	Average Pro. per cow	Total Pro.	%	Average Pro. per cow	Total Pro.	%	Average Pro. per cow	Total Pro.	%	daily Pro.	%
Attanagalla	1.15	367	29	2.45	230	21	3.50	585	50	1182	100
Biyagama	1.66	876	28	-	-	-	3.73	2212	72	3088	100
Divulapitiya	1.53	1322	31	3.38	821	21	2.97	1907	48	4050	100
Gampaha	1.11	824	61	2.75	226	17	5.00	290	22	1340	100
Katana	1.14	1000	57	-	-	-	2.25	711	43	1711	100
Mahara	2.07	696	55	-	-	-	5.00	505	45	1201	100
Minuwangoda	1.45	841	33	3.37	101	4	2.38	1533	63	2475	100
Mirigama	1.65	868	33	2.97	291	11	2.62	1441	56	2600	100
Weke	1.50	677	55	-	-	-	2.13	556	45	1233	100
Kelaniya	1.24	1564	30	5.08	178	3	6.06	3466	67	5208	100
Ja-Ela											
Wattala											
Negambo											
Total	1.51	9035	37	3.30	1847	8	3.15	13206	55	24088	100

Table 6.2
 DAILY AVERAGE MILK PRODUCTION PER COW AND THE DAILY TOTAL PRODUCTION
 OF MILK BY VARIETY OF COW AND BY A.G.A. DIVISIONS

BUFFALOES

UNIT: LITRES

A.G.A. Division	Local			Indian			Total Daily Production	%
	Average Pro. per cow	Total Pro.	%	Average Pro. per cow	Total Pro.	%		
Attanagalla	-	-	-	1.00	2	100	2	100
Biyagama	-	-	-	-	-	-	-	-
Divulapitiya	-	-	-	2.00	68	100	68	100
Gampaha	-	-	-	-	-	-	-	-
Katana	-	-	-	-	-	-	-	-
Mahara	-	-	-	-	-	-	-	-
Minuwangoda	2.2	4	100	-	-	-	4	100
Mirigama	-	-	-	-	-	-	-	-
Weke	-	-	-	2.07	89	100	89	100
Kelaniya	}	-	-	7.33	726	100	726	100
Ja-Ela								
Wattala								
Negambo								
Total	2.2	4	1	3.86	885	99	889	100

Table 7
 PERCENTAGE DISTRIBUTION OF UTILIZATION OF MILK BY A.G.A. DIVISIONS

A.G.A. Division	Home Consumption	Sold to Private Person	Sold to milk Collecting Centre
1. Attanagalla	35	40	25
2. Biyagama	57	43	-
3. Divulapitiya	12	5	83
4. Gamapaha	64	27	9
5. Katana	56	44	-
6. Mahara	46	47	7
7. Minuwangoda	51	12	37
8. Mirigama	17	19	64
9. Weke	56	10	34
10. Kelaniya			
Ja-Ela	14	86	-
Wattala			
Negambo			
District Total	26	28	46

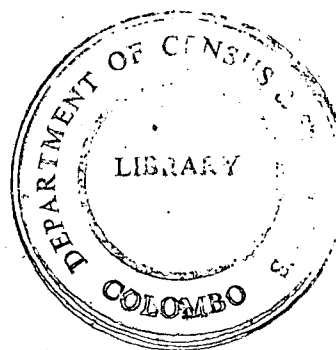


Table 8
PERCENTAGE DISTRIBUTION OF LABOUR FORCE BY SEX AND BY A.G.A. DIVISIONS

A.G.A.Division	Male				Female				Children			
	Paid		Un-Paid		Paid		Un-paid		Paid		Un-paid	
	%	Av.No.of hours	%	Av.No.of hours	%	Av.No.of hours	%	Av.No.of hours	%	Av.No.of hours	%	Av.No.of hours
1. Attanagalla	2	2.5	91	2.2	-	-	6	2.2	-	-	1	3.5
2. Biyagama	3	3.5	81	3.2	-	-	14	2.1	2	6	-	-
3. Divulapitiya	10	3.1	72	1.8	1	2.3	14	1.3	1	8	2	1.7
4. Gamapaha	5	3.8	92	3.4	-	-	3	3.5	-	-	-	-
5. Katana	26	6.1	53	3.1	-	-	21	2.4	-	-	-	-
6. Mahara	1	2.0	88	3.5	-	-	11	2.3	-	-	-	-
7. Minuwangoda	4	5.2	77	2.7	1	6.0	16	2.2	-	-	2	1.5
8. Mirigama	8	4.2	79	3.8	-	-	11	3.0	-	-	2	3.0
9. Weke	3	7.3	73	5.0	-	-	16	3.6	-	-	8	4.2
10. Ja-Ela	13	6.1	56	2.0	1	2.5	20	1.6	2	1.2	8	1.5
Kelaniya												
Negambo												
Wattala												
District Total	6	4.3	78	3.1	0.3	3.1	13	2.4	0.3	4.9	3	3.0

Table 9
**DISTRIBUTION OF LIVESTOCK OPERATORS WITH MILKING COWS WHO ARE NOT
MILKED BY MAJOR REASONS BY A.G.A. DIVISIONS**

A.G.A. Division	Percentage of Operator with Milking cows but not Milked by Reason for not Milking					
	Milk not Sufficient	No Marketing Facilities	Prices too Low	Lack of Labour for Milking	Other	Not Coded
1. Attanagalla	25	-	-	6	38	31
2. Biyagama	-	-	-	-	100	-
3. Divulapitiya	50	-	-	5	40	5
4. Gampaha	-	20	-	20	60	-
5. Katana	43	14	-	29	14	-
6. Mahara	-	-	-	-	-	-
7. Minuwangoda	-	25	12	12	50	1
8. Mirigama	11	5	-	5	63	16
9. Weke	12	24	-	-	64	-
10. Ja-Ela	}	}	}	}	}	}
Kelaniya						
Negambo						
Wattala						
District Total	15	13	1	13	54	4

Table 10
**COMPARISON OF MONEY INCOME GENERATED BY DAIRY FARMING
 WITH OTHER SOURCES BY A.G.A. DIVISIONS**

A.G.A. Division	% of Dairy Farmers who Consider Milk Production as		
	The Main Source of Income	An Additional Source of Income	A Source with No Monetary Benefit
1. Attanagalla	8	45	47
2. Biyagama	7	29	64
3. Divulapitiya	3	66	31
4. Gampaha	-	29	71
5. Kantana	5	35	60
6. Mahara	-	64	36
7. Minuwangoda	-	36	64
8. Mirigama	3	75	22
9. Weke	7	38	55
10. Ja-Ela	18	36	46
Kelaniya			
Negambo			
Wattala			
District Total	5	52	42

Table 11
AVAILABILITY OF A SHED BY A.G.A. DIVISIONS

A.G.A. Division	% of Livestock holdings with			
	No. Shed	Temporary Shed	Permanent Shed	Unspecified
1. Attanagalla	58	29	13	-
2. Biyagama	38	18	44	-
3. Divulapitiya	65	24	11	-
4. Gampaha	59	17	24	-
5. Katana	58	24	13	5
6. Mahara	52	39	8	1
7. Minuwangoda	35	40	25	-
8. Mirigama	68	20	10	2
9. Weke	47	37	16	-
10. Ja-Ela	34	48	18	-
Kelaniya				
Negambo				
Wattala				
District Total	55	28	16	1

Table 12
**AWARENESS AND USE OF VETERINARY SERVICES BY DISTANCE TO
 THE CLOSEST VET. OFFICE BY A.G.A. DIVISIONS**

A.G.A. Division	% of Operators who are aware of Vet. Services	% of Operators by the Distance to the Vet. Office				
		Distance to Vet. Office				
		< 1 Mile	1-5	5-10	> 10 Miles	Not Coded
1. Attanagalla	95	-	81	13	1	-
2. Biyagama	94	-	14	30	50	-
3. Divulapitiya	88	6	44	25	13	-
4. Gampaha	97	14	42	41	-	-
5. Katana	94	-	70	24	-	-
6. Mahara	98	1	32	63	-	2
7. Minuwangoda	63	10	51	-	-	2
8. Mirigama	83	7	58	18	-	-
9. Weke	75	-	36	37	1	1
10. Ja-Ela	90	4	36	50	-	-
Kelaniya						
Negambo						
Wattala						
District Total	86	5	52	25	4	-

* Percentage of operators who have used Veterinary services during the previous three months = 9%

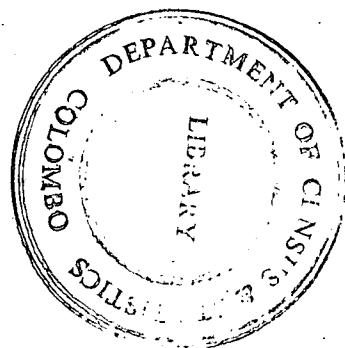
Table 13
OTHER AGRICULTURAL ACTIVITIES OF THE OPERATOR'S HOUSEHOLD
BY A.G.A. DIVISIONS

A.G.A. Division	% of Livestock Holdings		
	No Other Agri. Activity	Rearing Other Kinds of Animals or Engaged in Cultivation	Rearing Animals Cultivation both
1. Attangalla	4	72	24
2. Biyagama	16	60	24
3. Divulapitiya	6	58	36
4. Gampaha	4	64	32
5. Katana	22	51	27
6. Mahara	4	65	31
7. Minuwangoda	5	65	30
8. Mirigama	12	71	17
9. Weke	11	78	11
10. Ja-Ela	10	26	64
Kelaniya			
Negambo			
Wattala			
District Total	8	65	27

Table 14
 PERCENTAGE DISTRIBUTION OF LIVESTOCK HOLDINGS ACCORDING TO THE MAJOR
 CONSTRAINT PREVENTING EXPANSION OF DAIRY PRODUCTION BY A.G.A. DIVISIONS

A.G.A.Division	Not Interested	Lack of Capital	No Credit Facilities	High Cost of Animal Food	Lack of Labour	Lack of Land	High Incidence of Diseases	Non-Availability of Hi-bred Animals	Price of Milk too Low	Others	Not Coded
1. Attanagalla	23	27	9	2	4	9	-	11	2	8	5
2. Biyagama	4	2	-	-	4	38	-	4	22	26	-
3. Divulapitiya	18	7	1	1	1	35	1	2	2	31	1
4. Gampaha	31	11	1	4	18	12	-	-	3	20	-
5. Katana	22	16	-	-	2	31	-	20	2	-	7
6. Mahara	36	34	7	-	6	9	-	-	-	1	7
7. Minuwangoda	38	20	1	4	4	10	-	6	1	4	12
8. Mirigama	17	10	3	1	5	42	-	9	2	7	4
9. Weke	18	8	1	6	14	33	-	2	2	16	-
10. Ka-Ela	16	14	-	3	21	24	3	5	-	10	4
Kelaniya											
Negambo											
Wattala											
District Total	23	15	3	2	6	25	-	6	2	14	4

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2016	2015	2014	2013	2012	විදිම පරිසරය