REPUBLIC OF GHANA

REPORT

ON

SAMPLE CENSUS OF AGRICULTURE OF GHANA, 1984

VOLUME I

ECONOMIC RESEARCH AND PLANNING SERVICE

MINISTRY OF FOOD AND AGRICULTURE

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INTRODUCTION

1.1. Background

It is thought desirable to give a brief outline of the history of the collection, analysis and publication of agricultural statistics in Ghana in as far as it is relevant to the planning and objectives of the 1984/85 Sample Census of Agriculture.

In 1950, Ghana (then the Gold Coast and British Togoland) was among 23 African Countries that participated in the World Census of Agriculture, but this merely involved formulation of regional estimates on acreage and production of food crops.

In early 1960's, many surveys on specific aspects of the country's agricultural economy were undertaken, but the national estimates of areas and yields of crops were derived from reports submitted by Agricultural Officers in the districts.

In 1964, however, there was a complete enumeration of the large and specialized holdings. From 1965 to 1969, annual sample surveys of small holdings were conducted, and the sample size for the survey rose from 2,000 holdings in 1965 to 5,000 in 1969.

In 1970, Ghana participated fully in the World Census of Agriculture Programme and this involved collection of data from a sample of over 58,000 holders spread over 702 sample Enumeration Areas. The Census was successfully carried out; and by March 1972, Volume I of the Census Report giving inter alia, the results on land use, crops and livestock was published; with Volume II coming out the following year with the rest of the results.

1.2. Administrative Responsibility

A Government circular dated 2nd November, 1979 established a National Agricultural Census Committee which was inaugurated in March 1980. The Committee was to plan, execute and see to the implementation of the Census Programme. This Committee later broke into sub-committees to see to the various facets of the census.

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The parent Committee was however folded up in 1982 and thereafter, the planning and execution of the census programme fell solely upon the Director of Agricultural Economy, Ministry of Agriculture who was helped by the National Agricultural Census Co-ordinator, Senior Officers of the Crop Statistics Section and an FAO statistician.

1.3. Objectives

It was decided by the National Agricultural Census Committee that the Census Programme should be split into two phases; the first to take place in 1984 and the second in 1985. It was also agreed to follow the main objectives set out for the 1970 Census of Agriculture Programme which were:

(i) To conduct a Sample Census of Agriculture based on an adequate frame of sufficient size to enable district, regional and national estimates to be produced for the main items to be included in the census;

(ii) to give enough training in the methodology required in the field to the staff to be engaged in the collection of the census data and to ensure that they were brought to a high level of efficiency in carrying out their duties; and

(iii) to produce from the sample census, a master sample of holders about whom certain basic information could be collected.

It was also generally agreed among members of the committee to follow broadly the guidelines laid down in the 1980 World Census of Agriculture Regional Programme for Africa as published by FAO.

1.4. Census Organization

The Sample Census of Agriculture was basically the responsibility of the Economic Research and Planning Service (ERPS) of the Ministry of Agriculture; and the section whose resources were utilised in carrying out the Census was the Statistics Section.

Apart from Headquarters staff including Senior Officers working with the Section, the Department has permanent officers in each

of the ten regions of Ghana headed by a Regional Agricultural Econo mist who is normally a graduate. Each Regional Agricultural Economist has at his disposal a Regional Supervisor, District Supervisor and a number of field enumerators. These were the staff that were utilitsed for the collection of the data; no extra staff were recruited specifically for the census.

Table 1.1 below gives the breakdown of the field force available for the census enumeration.

Table 1.1 - REGIONAL STAFF USED FOR CENSUS ENUMERATION

Region	Senior, Professional and Supervisory Staff	Field Enumerators	Total
Western	10	56	66
Central	12	63	75
Greater Accra	6	37	43
Eastern	16	85	101
Volta	11	59	70
Ashanti	15	70	85
Brong Ahafo	12	95	107
Northern	9	37	46
Upper East	13	64	77
Upper West	10	50	60
Total	114	616	730

It must however be stated that between the period when the sample size for the first-stage units(Enumeration Areas)was decided (based on the number of field staff at post then) and when the field work was actually commenced, the Department had lost about 112 field enumerators.

1.5. Publicity

A series of activities were planned to publicise the Agricultural Census Programme. These were to be organised at the national, regional, district and enumeration area levels. In March 1984, the Secretary for Agriculture held a press conference to brief the media on the Census Programme. A radio and television broadcast

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by the Secretary for Agriculture on the eve of the Agricultural Census night i.e. Ist April 1986, was also planned. However, for various reasons, the TV and Radio Programmes were cancelled at the last minute. Other publicity programmes planned were also cancelled. The regions were therefore asked to organize their publicity and this was carried out between the 2nd and 30th April 1984. The publicity proved successful, but in a few cases the results were not encouraging because of land and chieftancy disputes.

CHAPTER II

PLANNING AND ORGANIZATION OF PHASE I OF THE CENSUS

2.1. Introduction

This part of the report concerns the planning and execution o the first phase of the Census Programme extending over the entire 1984 calendar year.

It was decided to collect information on the following items during the first phase:

(a) Holders and Holdings,
(b) Inventory of Crops on Holdings
(c) Livestock and Poultry, and
(d) Crop Areas.

The second phase of the Programme covering crop yields, farm population and labour and household activities on holdings was organized and conducted in 1985; and this phase will be covered in a second volume of this Report.

2.2. Preparatory Activities

Over the past years, the field, supervisory and professional staff of Economic Research and Planning Service (ERPS) have acqui much experience in handling problems that arise in the collection agricultural statistics in Ghana. The methodology for area measu ment by use of tape and compass and the techniques for interviewin holders are well known to most of the staff. For various reasons including that of minimising cost, no pilot surveys were undertak to test the questionnaires. This was also because a set of questionna using similar concepts had been used the previous year to collect data for the 1983 Annual Agricultural Production Sample Survey.

2.3. Sampling Plan and Sample Selection

The advantages of a complete census are well known. A major advantage is its ability to provide estimates for smaller adminis trative and planning units or areas which a sample census cannot provide but which are needed for formulating and executing plans

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for regional development or development of small selected areas. However, these advantages are, in most cases, far from being important to justify the enormous cost of a complete enumeration in a country such as Ghana where objective methods of direct area measurement of farms are required to obtain data on farm sizes and crop areas. The country neither has the resources and trained manpower nor the infrastructure to embark on any feasible programme of complete measurement of all farms. Hence a sample census appears the only possibility, as it can be conducted by using a smaller and therefore better qualified and trained force. The size and design of the sample census have to be such as can produce reliable national and regional and if possible also district estimates.

The country has been divided into Enumeration Areas (EAs) all of which had been previously mapped by the Population Census Office. In early 1979, the boundaries of the existing EAs were revised and a new list of 12,996 EAs prepared. This revised list of EAs formed the frame for the selection of the new sample of Enumeration Areas for the 1984/85 Agricultural Census.

The 12,996 EAs were first stratified into the following forty-three Agricultural Census Districts according to agro-ecological conditions.

Table 2.1 - LIST OF RESULTING STRATA

Region	District
Western	1. Axim-Takoradi
	2. Tarkwa
	3. Asankragwa
	4. Wiawso
Central	5. Cape Coast
	6. Essiam
	7. Dunkwa
	8. Swedru
Greater Accra	9. Greater Accra
Eastern	10. Oda
	11. Asamankese
	12. Koforidua
	13. Akosombo
	14. Kibi
	15. Mpraeso

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Table 2.1 (contd)

Region	Districts
Volta	16. Sogakope
	17. Keta
	18. Ho
	19. Kpando
	20. Jasikan Kete-Krachi
Ashanti	21. Kumasi West
	22. Kumasi East
	23. Bekwai
	24. Obuasi
	25. Juaso Mampong East
	26. Mampong West
	27. Offinso-Teppa
Brong Ahafo	28. Goaso
	29. Sunyani
	30. Dormaa
	31. Wenchi West
	32. Wenchi East
	33. Atebubu
Northern	34. Damongo-Salaga
	35. Yendi-East
	36. Yendi-West
	37. Tamale
	38. Gambaga
Upper West	39. Wa
	40. Laura
Upper East	41. Navrongo
	42. Bolgatanga
	43. Bawku

In order to ensure adequate representation of the different types of Enumeration Areas, all EAs within a census district were further stratified into Urban, Semi-Urban and Rural categories. Enumeration Areas with a population of less than 1,500 were classified as Rural; Semi-Urban EAs were those with more than 1,500 but less than 5,000 population.

First Stage Sampling Units

Within each category of EAs in an agricultural district, a sample of EAs, the first stage sampling units, was selected using varying sampling fractions of 1:10, 1:15 and 1:20 in the rural, semi-urban and urban categories respectively. Systematic sampling procedure was used to select the sample of EAs and they were selected with probability proportional to their population which determined their size. For some semi-urban and urban categories where the number of EAs in each category in the frame could not permit adequate sample size to be selected, the two categories wer

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combined and a sampling fraction of 1:15 used to select the sample of EAs. The strength of field staff available for the census programme in each region was also considered in determining the number of EAs to be selected in the different categories. All in all, 1,008 EAs were selected as shown in Table 2.2 below.

Table 2.2 - NUMBER OF SAMPLE ENUMERATION AREAS BY REGION

Region	No. of Sample Areas			
	Total	Urban	Semi-Urban	Rural
Western	103	16	15	72
Central	109	16	30	63
Greater Accra	43	20	3	20
Eastern	141	18	33	90
Volta	114	13	21	80
Ashanti	153	9	42	102
Brong Ahafo	103	6	32	65
Northern	115	8	17	90
Upper West	50	1	9	40
Upper East	77	3	1	73
Total	1,008	110	203	695

The frequency distribution of the number of districts (strata) according to the number of sample EAs they had is given below.

TABLE 2.3 DISTRIBUTION OF NO. OF DISTRICTS BY NO. OF EAs CONTAINED

Number of Sample Areas	Number of Districts
Less than 14	1
14 - 17	3
18 - 21	14
22 - 25	12
26 - 29	6
30 - 35	6
36 - 40	1
41 or more	-
Total	43

Once the 1,008 areas had been selected from the list of Population Census Enumeration Areas, the task ahead was that of

identifying the selected areas on the ground with the help of maps of these EAs and their boundary descriptions. It was not however, possible to have photo copies of the EA maps made because of the shortage of chemicals needed for the purpose. However, boundary descriptions of the selected EAs were made available by the Population Census Office and copies were typed out and handed over to the enumerators.

Second Stage Units

Within a selected EA, all the compounds/houses, households and agricultural holders were first listed. A sample of 10 holders was then selected by systematic sampling and with equal probability. All fields (farms) in the holdings of the 10 selected holders were then enumerated and measured and so were their livestock and poultry

Third Stage Units

Two to three EAs were allocated to each field enumerator. The allocation of EAs to each enumerator was done with consideration to their proximity to the location of the enumerator. One of these EAs, usually a rural one, was then designated as the "Base EA" in which only yield studies were carried out. On identification of the "Base EA", all fields (farms) of each selected holder in it were listed. For each crop, one field per holder was randomly selected by the enumerator for the yield studies and on each selected field, two yield plots were laid. The plot size varied from crop to crop.

2.4. Area Measurement Methodology

Previous agricultural statistics surveys in Ghana had shown that for estimation of areas under crops, it is necessary to carry out objective measurement of the areas of fields (farms) planted with crops. Very few holders in the country are able to give even rough figures as to the size of their farms. The need for such objective measurements of farms is the major reason why a sample of holders listed in each EA was selected for the estimation of areas under the various crops.

For some years, all the staff involved in agricultural statistics surveys have been using the "tape and compass" method of measuring fields and holdings. This method involves plotting the shap

of the field by taking compass bearings from one corner to the next and measuring the length of each side.

2.5. The Census Questionnaires

The Questionnaires used during phase I of the census programme are given in Appendix I and the Instructions Manual is in Appendix II. However, only Forms 1, 2 and 3 which were used during phase I of the census will be discussed in this volume of the report.

2.5.1. Form 1 - Listing of Agricultural Households and Holders

This form was used at the beginning of the census to compile a complete and up-to-date list of all agricultural holders in the selected Enumeration Areas for the selection of the second stage sampling units, i.e. agricultural holders.

2.5.2. Form 2 - Inventory of Crops, Livestock and Poultry

This form was used to compile an inventory of crops on the holdings of the sampled holders and of livestock and poultry kept thereon. The livestock and poultry recorded included those kept at the holder's residence and holdings irrespective of ownership as well as those belonging to him and non-holder members of his household but kept elsewhere.

For the crops that were listed on this form, information was also collected on the planting and harvesting periods of the crops.

2.5.3. Form 3 - Area Under Different Crops and Crop Mixtures

This Questionnaire was used to record the crops and their areas grown on each field (farm) within the holding of each selected holder.

This form was completed after the fields were objectively measured using the tape and compass method. Those farms that were found to be "far away" i.e., those which the holder could not visit and return to his normal residence the same day, were recorded separately.

2.5.4. Field Document A - Selection of Holders

This form which was not really a part of the set of questionnaires was used after the listing of holders in the selected Enumeration Areas was completed. It set out the steps to be

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followed in the selection of the sample of 10 holders in each EA for subsequent census operations involving field area measurement and crop yield studies and enquiries relating to livestock, poultry, farm population and employment, etc.

2.6. Training of Field Enumerators

The training of all field staff (supervisors and enumerators) to be involved in the Census Programme was held on regional basis by the Regional Agricultural Economists with the assistance of the National Co-ordinator of the Census Programme.

It was completed before March 1984 for the field work to begin on time on 1st April 1984, the date chosen as the Agricultural Census Night. Emphasis was on explaining in detail to the field staff the various questionnaires, the techniques of interviewing the holders, field area measurements, crop yield studies and concepts and definitions involved. The tact and technique of canvassing the questionnaires with the holders was explained at some length to enable the enumerators to get the best of holders' co-operation and thus accurate information.

The performance of the staff during the training session was encouraging, and the trainees participated actively in practical fields demonstrations.

After the training, periodic on-the-job training was offered to the weaker enumerators to help them improve their performance.

2.7. Field Work

After the training sessions, publicity and distribution of census questionnaires and equipment to the regions and districts, the census enumeration was commenced.

The listing operation was started throughout the country on 2nd April 1984, the day following the Agricultural Census Night. The field enumerators were equipped with boundary descriptions of the areas assigned to them as well as copies of the questionnaires and the necessary equipment to conduct the enumeration.

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Most enumerators had two to three enumeration areas to cover, but in rare cases in some districts where some of the field staff had resigned just before the commencement of the programme, some enumerators had to work in four enumeration areas.

The enumerators were asked to use the names of localities listed on the boundary description as a guide to include new localities that were found within the enumeration area but were not listed.

There was a lot of delay in the urban enumeration areas because of the difficulties encountered in identifying possible holders and locating them for interview. There were numerous "call-backs" due to the fact that most of these holders were also workers in the offices.

In a few instances in some regions, a few areas proved difficult for enumeration due to lack of co-operation from the chiefs and the people. Such cases were most prevalent in localities where there were land disputes or chieftancy troubles. No replacements were made in areas that refused to co-operate with the Census Programme and raising factors were accordingly adjusted at the time of tabulation assuming that areas that failed to co-operate were not different in type from the rest of the universe under study.

CHAPTER III

CONCEPTS AND DEFINITIONS

3.1. Introduction

This chapter is devoted to a discussion of the concepts and definitions of the terms used on the census questionnaires such as Holder, Holding, Household, Farming Household, House, Compound, etc.

3.2. Agricultural Holding and Holder

An agricultural holding is defined to include all the land that is used wholly or partially for agricultural production under one technical unit by one person alone or with others without regard to title, legal form, size or location. All units without land but producing livestock and poultry are also considered as holdings.

The person who is entrusted to exercise the operational or management control and responsibility over the holding is defined as the holder. In Ghana, one or more fields (farms) may be retained for permanent cultivation by a holder, whilst others are cultivated on a shifting cultivation basis. The total area of the holding in such cases was regarded as the sum total of :

(i) The area under crops during the reference period of the census.

(ii) The area prepared for cultivation but not sown or planted at the time of enumeration.

3.3. Household

The concept of a household during the census was based on arrangements made by persons individually or in a group to provide themselves with essentials of living which mainly include food. A household therefore consists of one or several related or unrelated persons with a common food supply which implies a common kitchen. Persons constituting members of a household are normally expected to pool their kind and cash incomes and obtain their essential living requirements either by drawing from such a common pool or common stock of goods acquired through their joint efforts.

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3.4. Farm Household:

Any household which has among its members at least one person who can be considered as a holder is recognized as a Farm Household. Normally, the farms cultivated by members of the family or the head of the household are regarded as part of the holding of the Head. Occasionally however, a member of the family may be operating a holding in his or her own right and is therefore a holder and such persons were interviewed separately.

3.5. Head of Household

The head of a household is the person who is acknowledged as such by all other members either by virtue of his age or standing in the household as the chief income earner. Such a person is usually vested with the responsibility for the maintenance of the household and gives advice to other household members on all matters of social and economic significance.

3.6. Agricultural Year

For the purposes of time reference during the census, a calendar year from January to December was considered as an agricultural year.

3.7. Main (First) and Minor (Second) Seasons

The main or first season normally refers to the growing cycle of temporary crops that are planted in the first half of the year, occasionally extending up to July. Harvesting of these crops normally commences by September or October and may be extended up to November or even December.

The minor or second season is generally revelant to vegetables and short duration varieties of some temporary crops which have a growing cycle commencing with their planting in the second half of the agricultural year and harvesting extending from November to January.

3.8 Parcel (or Farm)

An agricultural holding raising crops consists of one or more land parcels or farms. A parcel or farm is any piece of land in the holding which is entirely surrounded by land, water, road, forest, etc. not forming part of that holding. A land parcel in Ghana is

synonymous with what is commonly understood otherwise as a "farm" corresponding to a single contiguous block of land under a single management.

3.9. Field

When a parcel or a farm is divided into two or more sections, with each section further enclosed with a land boundary or such other means of demarkation with a view to following different cropping or land management pattern in different sections, then each section is referred to as a field. In traditional subsistence farming, a whole land parcel or farm is often found to be a single field grown a single crop or crop mixture.

CHAPTER IV

HOLDERS AND HOLDINGS

4.1. Introduction

The definition of holder is given in the preceding chapter. It follows essentially the definition recommended for the 1980 World Census of Agriculture by the FAO

The distribution of number of holders by crop enterprise and other information on the holdings and their size will be presented in this chapter.

4.2. Number of Holders

Table 4.2.1 shows the number of holders in Ghana by district and region.

Table 4.2.1 - NUMBER OF HOLDERS BY REGION AND DISTRICT

Region and District	Number of Holders	%
Western Region	206190	11.1
Axim Takoradi	48760	2.6
Tarkwa	43290	2.3
Asankragwa	43340	2.4
Wiawso	70800	3.8
Central Region	217510	11.7
Cape Coast	38030	2.1
Essiam	47160	2.5
Dunkwa	61490	3.3
Swedru	70830	3.8
Greater Accra Region	48700	2.6
Greater Accra	48700	2.6
Eastern Region	244140	13.2
Akim Oda	50700	2.7
Asamankese	42310	2.3
Koforidua	54920	3.0
Akosombo	60350	3.3
Kibi	17270	0.9
Mpraeso	18590	1.0
Volta Region	274480	14.8
Sogakope	51940	2.8

Table 4.2.1 (contd)

Region and District	Number of Holders	%
Keta	65130	3.5
Ho	46340	2.5
Kpando	44430	2.4
Jasikan-Kete Krachi	66640	3.6
Ashanti Region	314.250	17.0
Kumasi West	43470	2.4
Kumasi East	44910	2.4
Bekwai	42750	2.3
Obuasi	32860	1.8
Juaso-Mampong East	42860	2.3
Mampong West	59480	3.2
Offinso-Teppa	47980	2.6
Brong Ahafo Region	252 669	13.7
Goaso	41770	2.2
Sunyani	50190	2.7
Dormaa	45580	2.5
Wenchi West	30570	1.7
Wenchi East	43700	2.4
Atebubu	40940	2.2
Northern Region	139900	7.6
Damongo-Salaga	33800	1.8
Yendi-East	21810	1.2
Yendi-West	21740	1.2
Tamale	40360	2.2
Gambaga	22190	1.2
Upper West Region	30960	1.7
Wa	10720	0.6
Lawra-Tumu	20240	1.1
Upper East Region	121230	6.6
Navrongo	54790	3.0
Bolgatanga	57810	3.1
Bawku	8630	0.5
TOTAL GHANA	1,850,.290	100.0

There are a total of 1,850,029 holders in Ghana. Ashanti Region has the highest number of holders, accounting for 17.0 per cent of all holders in Ghana. Upper West contains the fewest numb about 1.7 per cent of the national aggregate.

4.3. Holders and Crops Grown

Table 4.3.1 shows the number of holders growing maize and ri and their percentage in each district.

Table 4.3.1. - NUMBER OF HOLDERS GROWING MAIZE AND RICE

Region and District	MAIZE		RICE	
	Holders Growing Maize	%	Holders Growing Rice	
Western Region	127550	10.9	14230	1
Axim-Takoradi	18330	1.6	950	
Tarkwa	20320	1.7	3230	
Asankragwa	36090	3.1	7090	
Wiawso	52810	4.5	2960	
Central Region	187110	16.0	2290	
Essiam	43080	3.8	330	
Cape Coast	32030	2.7	-	
Dunkwa	56720	4.8	1700	
Swedru	55290	4.7	260	
Greater Accra Region	32730	2.8	1900	
Greater Accra	32730	2.8	1900	
Eastern Region	169750	14.5	2220	
Akim Oda	14620	1.2	1860	
Asamankese	36070	3.1	150	
Koforidua	48170	4.1	-	
Akosombo	44860	3.8	-	
Kibi	16050	1.4	-	
Mpraeso	9980	0.9	210	
Volta Region	175890	15.0	9780	
Sogakope	42630	3.6	1190	
Keta	21720	1.9	2220	
Ho	26920	2.3	-	
Kpando	31850	2.7	2730	
Jasikan Kete-Krachi	52770	4.5	3640	
Ashanti Region	167200	14.3	8250	
Kumasi East	11590	1.0	-	

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Table 4.3.1 (contd)

Region and District	MAIZE		RICE	
	Holders Growing Maize	%	Holders Growing Rice	%
Kumasi West	15050	1.3	1380	1.4
Bekwai	15720	1.3	2270	2.3
Obuasi	12080	1.1	1880	1.9
Juaso-Mampong East	36350	3.1	250	0.3
Mampong West	42410	3.6	990	1.0
Offinso-Teppa	34000	2.9	1480	1.5
Brong Ahafo Region	166910	14.2	14260	14.5
Goaso	32100	2.7	70	-
Sunyani	38990	3.3	-	-
Dormaa	24220	2.1	-	-
Wenchi East	24500	2.1	-	-
Wenchi West	27840	2.4	-	-
Atebubu	19260	1.6	14190	14.5
Northern Region	119610	10.2	12730	13.0
Damongo-Salaga	25970	2.2	3360	3.4
Yendi East	20560	1.8	1350	1.4
Yendi West	19140	1.6	1660	1.7
Tamale	35530	3.0	6170	6.3
Gambaga	18410	1.6	190	0.2
Upper West Region	18720	1.6	5730	5.8
Wa	2400	0.2	960	1.0
Lawra-Tumu	16320	1.4	4770	4.8
Upper East Region	6250	0.5	26730	27.2
Navrongo	4760	0.4	13500	13.7
Bolgatanga	1490	0.1	9230	9.4
Bawku	-	-	4000	4.1
Total Ghana	1171720	100.0	98120	100.0

A total of 1,171,720 holders grow maize in Ghana. This is about 63 per cent of the total number of holders in the country. About 16 per cent of the total are in the Central Region. The Upper East Region contains the lowest number, about half a per cent.

Ashanti and Brong Ahafo Regions contain almost the same number of holders that grow maize, and these two regions together account for 28.5 per cent of the total in the country.

About 98, 120 holders in Ghana are engaged in rice production, of which 84 per cent are found in the Upper, Northern, Brong Ahafo, Western and Volta Regions.

The cultivation of other major cereal crops, namely guinea corn and millet is confined mostly to Northern and Upper Regions as will be seen from Table 4.3.2 below.

Table 4.3.2 - NUMBER OF HOLDERS GROWING MILLET AND GUINEA CORN

Region and District	Guinea corn		Millet	
	Number of Holders	%	Number of Holders	%
Northern Region	122,490	53.4	97,010	48.5
Damongo-Salaga	25,380	11.1	20,080	10.0
Yendi-East	19,650	8.6	14,130	7.0
Yendi West	21,430	9.3	18,830	9.4
Tamale	36,240	15.8	24,310	12.2
Gambaga	19,790	8.6	19,660	9.9
Upper East Region	76,500	33.3	82,590	41.3
Navrongo	40,890	17.8	40,890	20.5
Bolgatanga	32,130	14.0	38,220	19.1
Bawku	3,480	1.5	3,480	1.7
Upper West Region	21,800	9.5	19,990	10.2
Wa	3,040	1.3	2,400	1.2
Lawra-Tumu	18,760	8.2	17,590	9.0
Volta Region	5,620	2.4	-	-
Brong Ahafo Region	3,180	1.4	-	-
Total (Ghana)	229,590	100.0	199,590	100.0

The four districts of Navrongo, Bolgatanga, Tamale and Damongo-Salaga have almost 55 per cent of guinea corn growers and 60 per cent of millet growers in the country.

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The number of holders growing the different types of root crops is shown by district and region in Table 4.3.3

Table 4.3.3 - NUMBER OF HOLDERS GROWING CASSAVA, YAM AND COCOYAM

Region and District	CASSAVA		YAM		COCOYAM	
	Number of Holders	%	Number of Holders	%	Number of Holders	%
Western Region	181800	13.1	28490	10.4	98080	12.4
Axim-Takoradi	39600	2.9	1030	0.4	740	0.1
Tarkwa	41790	3.0	230	0.1	9350	1.2
Asankragwa	37980	2.7	10560	3.8	20580	2.6
Wiawso	62430	4.5	16670	6.1	67410	8.5
Central Region	188040	13.6	4360	1.6	42060	5.3
Cape Coast	32530	2.4	350	0.1	1120	0.2
Essiam	44360	3.2	640	0.2	13400	1.7
Dunkwa	57000	4.1	1380	0.6	21790	2.7
Swedru	54150	3.9	1990	0.7	5750	0.7
Greater Accra Region	28560	2.1	-	-	-	-
Greater Accra	28560	2.1	-	-	-	-
Eastern Region	226010	16.3	19110	7.0	118700	14.9
Akim Oda	49980	3.6	2860	1.1	38420	4.8
Asamankese	39380	2.8	3610	1.3	15950	2.0
Koforidua	49340	3.6	1440	0.5	30260	3.8
Akosombo	56210	4.1	7170	2.6	21360	2.7
Kibi	15490	1.1	2290	0.9	5210	0.7
Mpraeso	15610	1.1	1740	0.6	7500	0.9
Volta Region	237180	17.2	26920	9.8	47120	5.9
Sogakope	44660	3.2	1100	0.4	480	0.1
Keta	27810	2.0	-	-	-	-
Ho	20850	1.5	3580	1.3	6900	0.9
Kpando	31210	2.3	2890	1.1	8980	1.1
Jasikan-Kete Krachi	112650	8.2	19350	7.0	30760	3.8
Ashanti Region	285180	20.6	46760	17.0	237860	29.9
Kumasi West	40310	2.9	2300	0.8	29060	3.6
Kumasi East	43210	3.1	6000	2.2	41080	5.2
Bekwai	41240	3.0	12900	4.7	34410	4.3

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Table 4.3.3 (contd)

Region and District	CASSAVA Number of Holders	%	YAM Number of Holders	%	COCOYAM Number of Holders	%
Obuasi	27440	2.0	3680	1.3	20360	2.6
Juaso-Mampong East	38310	2.8	9210	3.4	35700	4.5
Mampong West	55020	4.0	10410	3.8	43370	5.4
Offinso-Teppa	39650	2.8	2260	0.8	33880	4.3
Brong Ahafo Region	168020	12.2	77620	28.2	251270	31.6
Goaso	30120	2.2	3160	1.2	35380	4.4
Sunyani	32360	2.3	9720	3.5	30140	3.8
Dormaa	28720	2.1	17700	6.4	19850	2.5
Wenchi West	27660	2.0	14380	5.2	4600	0.6
Wenchi East	35870	2.6	14150	5.1	161300	20.3
Atebubu	13290	1.0	18510	6.8	-	-
Northern Region	67670	4.9	61070	22.2	-	-
Damongo-Salaga	20980	1.5	16740	6.1	-	-
Yendi East	12860	0.9	13560	4.9	-	-
Yendi West	11110	0.8	10860	4.0	-	-
Tamale	21960	1.6	17000	6.2	-	-
Gambaga	760	0.1	2910	1.0	-	-
Upper West Region	200	-	10430	3.8	-	-
Wa	-	-	4880	1.8	-	-
Lawra- Tumu	200	-	5550	2.0	-	-
Upper East Region	-	-	-	-	-	-
Navrongo	-	-	-	-	-	-
Bolgatanga	-	-	-	-	-	-
Bawku	-	-	-	-	-	-
Total Ghana	1382660	100.0	274760	100.0	795090	100.

Holders growing cassava in the country total 1,382,660. Thi represents about 75 per cent of the total number of holders in th country. Most of these holders are located in the Ashanti, Volt and Eastern Regions accounting for 54.1 per cent of the aggregat The sample in the Upper East Region was found to have no holder cultivating cassava.

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About 15 per cent of holders in Ghana engaged themselves in yam cultivation. Out of 274,760 such holders, 77,620 or 28 per cent were located in the Brong-Ahafo Region. Northern Region had 61,070 holders growing yam that is about 22.2 per cent of the total of such holders in Ghana. The sample for Greater Accra and Upper East Regions did not show existence of any holder growing yam.

The total number of holders growing cocoyam in the country is estimated to be 795,090 representing about 4.3 per cent of the total number of holders in the country. Of this, 251,270 (31.6%) and 237,860 (29.9%) are found in the Brong Ahafo and Ashanti Regions respectively. The sample for Greater Accra, Northern, Upper East and Upper West Regions showed no holders growing cocoyam.

Table 4.3.4 shows the number of holders growing Plantain, Tomato and Pepper for each district and region.

Table 4.3.4 - NUMBER OF HOLDERS GROWING PLANTAIN, TOMATO And PEPPER

District and Region	PLANTAIN		TOMATO		PEPPER	
District and Region	No. of Holders	%	No. of Holders	%	No. of Holders	%
Western Region	73710	15.6	31510	20.2	8710	14.2
Axim-Takoradi	5700	1.2	2890	1.8	740	1.2
Tarkwa	10970	2.3	3000	1.9	2540	4.1
Asankragwa	24130	5.1	6820	4.4	1280	2.1
Wiawso	32910	7.0	18800	12.1	4150	6.8
Central Region	29780	6.3	19430	12.5	5480	9.0
Cape Coast	2420	0.5	9200	5.9	4710	7.7
Essiam	7960	1.7	560	0.4	230	0.4
Dunkwa	13850	2.9	5400	3.5	-	-
Swedru	5550	1.2	4270	2.7	540	0.9
Greater Accra Region	250	0.1	10350	6.6	11080	18.1
Greater Accra	250	0.1	10350	6.6	11080	18.1
Eastern Region	85650	18.1	7670	4.9	9060	14.8
Akim Oda	24300	5.1	410	0.3	210	0.3
Asamankese	11820	2.5	-	-	300	0.5
Koforidua	7060	1.5	2270	1.5	440	0.7
Akosombo	6690	1.4	3940	2.5	6230	10.2
Kibi	28160	5.9	200	0.1	390	0.6
Mpraeso	7820	1.7	850	0.5	1490	2.5

Table 4.3.4 (contd)

Region and District	PLANTAIN No. of Holders	%	TOMATO No. of Holders	%	PEPPER No. of Holders	%
Volta Region	21080	4.4	24130	15.5	6530	10.7
Sogakope	1680	0.3	6190	4.0	240	0.4
Keta	-	-	-	-	1110	1.8
Ho	5700	1.2	4400	2.8	2200	3.6
Kpando	4180	0.9	4700	3.0	1310	2.2
Jasikan Kete Krachi	9520	2.0	8840	5.7	1670	2.7
Ashanti Region	188830	39.9	21230	13.6	13560	22.2
Kumasi West	20570	4.3	1030	0.7	520	0.9
Kumasi East	20850	4.4	3210	2.1	850	1.4
Bekwai	33820	7.2	9750	6.2	2080	3.4
Obuasi	19830	4.2	380	0.2	1900	3.1
Juaso Mampong East	35470	7.5	-	-	1010	1.7
Mampong West	28150	5.9	1430	0.9	630	1.0
Offinso-Teppa	30110	6.4	5430	3.5	6570	10.7
Brong Ahafo Region	73440	15.5	35270	22.6	6110	10.0
Goaso	23060	4.9	8710	5.6	990	1.6
Sunyani	25840	5.5	4260	2.7	1400	2.3
Dormaa	12840	2.7	9140	5.9	460	0.7
Wenchi West	2360	0.4	9930	6.4	2360	3.9
Wenchi East	9340	2.0	2290	1.5	900	1.5
Atebubu	-	-	940	0.5	-	-
Northern Region	680	0.1	5480	3.5	220	0.4
Damongo-Salaga	130	-	650	0.4	-	-
Yendi East	100	-	100	0.1	-	-
Yendi West	-	-	830	0.5	-	-
Tamale	330	0.1	1530	1.0	220	0.4
Gambaga	120	-	2370	1.5	-	-
Upper West Region	100	-	490	0.3	390	0.6
Wa	-	-	-	-	-	-
Lawra-Tumu	100		490	0.3	390	0.
Upper East Region	-	-	400	0.3	-	-
Navrongo	-	-	400	0.3	-	-
Bolgatanga						
Bawku						
Total Ghana	473520	100.0	155960	100.0	61140	10(

There are a total of 473,520 holders growing plantain in Ghana; this is about 25.6 per cent of holders in the country cultivating crops. About 40 per cent of these holders are found in the Ashanti Region. The number of holders growing plantain in the Greater Accra, Northern and Upper Regions is very neglible.

While a lot of holders growing tomato are found in the Brong Ahafo Region, Ashanti Region has the highest number of holders that cultivate pepper.

4.4. Number and Size of Holdings

Information on the number of farms operated and details of the farms including the measurement of areas under different crops were collected from the sample of holders. The information given in this chapter refers to the holdings as they were during the major agricultural season in 1984. New farms that were opened during the minor season have not been included in the tabulation of holdings by size and distribution of number of farms.

The practice of shifting cultivation is prevalent in the country. Certain crops such as oil palm do occupy land that is usually retained by the holder for a very long time, while his other crops are grown on other parcels of land which may change fairly frequently. The holding therefore consists of the land under cultivation and the land opened for cultivation in the 1984 major season. Land under fallow and unsued land are not considered as part of the holding

Table 4.4.1 shows the size distribution of holdings in Ghana.

Table 4.4.1. - SIZE DISTRIBUTION OF HOLDINGS IN GHANA

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	1,223,100	66.1
2 - 3.9	338,700	18.3
4 - 5.9	134,800	7.3
6 - 7.9	61,000	3.3
8 - 9.9	31,000	1.7
10 - 14.9	34,100	1.8
15 - 19.9	14,300	0.8
20 - 29.9	7,300	0.4
30.0 and more	5,500	0.3
Total	1,849,800	100.0

About sixty-six per cent of all holdings in Ghana are le than two acres and approximately three per cent of all holding more than 10 acres in size.

Tables 4.4.2 to 4.4.11 show the size distribution of hold in each of the ten regions.

Table 4.4.2 - SIZE DISTRIBUTION OF HOLDINGS - WESTERN REG

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	126,400	61.4
2 - 3.9	44,600	21.7
4 - 5.9	16,900	8.2
6 - 7.9	6,500	3.2
8 - 9.9	5,200	2.5
10 - 14.9	3,800	1.8
15 - 19.9	1,800	0.9
20 - 29.9	400	0.2
30.0 and more	400	0.2
Total	206,000	100.0

Table 4.4.3 - CENTRA REGION

Size of Holding(Acres)	Number of Holdings	%
0 - 1.9	177,600	81.7
2 - 3.9	28,200	13.0
4 - 5.9	6,500	3.0
6 - 7.9	3,100	1.4
8 - 9.9	1,000	0.5
10. - 14.9	600	0.3
15 - 19.9	300	0.1
20 - 29.9	-	-
30.0 and More	100	-
Total	217,400	100.0

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Table 4.4.4 - GREATER ACCRA REGION

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	42,100	86.4
2 - 3.9	4,800	9.9
4 - 5.9	1,200	2.5
6 - 7.9	400	0.8
8 - 9.9	-	-
10 - 14.9	-	-
15 - 19.9	-	-
20 - 29.9	-	-
30.0 and more	200	0.4
Total	48,700	100.0

Table 4.4.5 - EASTERN REGION

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	210,700	86.3
2 - 3.9	27,600	11.3
4 - 5.9	3,200	1.3
6 - 7.9	700	0.3
8 - 9.9	1,000	0.4
10 - 14.9	900	0.4
15 - 19.9	100	-
20 - 29.9	-	-
30.0 and more	-	-
Total	244,200	100.0

Table 4.4.6 - VOLTA REGION

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	232,600	84.7
2 - 3.9	28,500	10.4
4 - 5.9	6,300	2.3
6 - 7.9	3,300	1.2
8 - 9.9	2,100	0.8
10 - 14.9	1,400	0.5
15 - 19.9	300	0.1

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Table 4.4.6 (contd)

Size of Holding (Acres)	Number of Holding	%
20 - 29.9	-	-
30.0 and more	-	-
Total	274,500	100.0

Table 4.4.7 - ASHANTI REGION

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	237,600	75.6
2 - 3.9	38,100	12.1
4 - 5.9	16,500	5.3
6 - 7.9	7,900	2.5
8 - 9.9	2,800	0.9
10 - 14.9	4,700	1.5
15 - 19.9	3,000	1.0
20 - 29.9	1,300	0.4
30.0 and more	2,300	0.7
Total	314,200	100.0

Table 4.4.8 - BRONG AHAFO REGION

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	112,000	44.3
2 - 3.9	83,900	33.2
4 - 5.9	30,200	11.9
6 - 7.9	11,800	4.7
8 - 9.9	4,700	1.9
10 - 14.9	5,800	2.3
15 - 19.9	1,800	0.7
20 - 29.9	1,300	0.5
30.0 and more	1,300	0.5
Total	252,800	100.0

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Table 4.4.9 - NORTHERN REGION

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	14,700	10.5
2 - 3.9	33,500	24.0
4 - 5.9	35,800	25.6
6 - 7.9	21,300	15.2
8 - 9.9	11,400	8.2
10 - 14.9	13,000	9.3
15 - 19.9	5,900	4.2
20 - 29.9	3,500	2.5
30.0 and more	700	0.5
Total	139,800	100.0

Table 4.4.10 - UPPER WEST REGION

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	16,900	54.5
2 - 3.9	9,000	29.0
4 - 5.9	2,200	7.1
6 - 7.9	1,600	5.2
8 - 9.9	700	2.3
10 - 14.9	600	1.9
15 - 19.9	-	-
20 - 29.9	-	-
30.0 and more	-	-
Total	31,000	100.0

Table 4.4.11 - UPPER EAST REGION

Size of Holding (Acres)	Number of Holdings	%
0 - 1.9	52,500	43.4
2 - 3.9	40,500	33.4
4 - 5.9	16,000	13.2
6 - 7.9	4,400	3.6

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Table 4.4.11 (contd)

Size of Holding (Acres)	Number of Holdings	%
8 - 9.9	2,100	1.7
10 - 14.9	3,300	2.7
15 - 19.9	1,100	0.9
20 - 29.9	800	0.7
30.0 and more	500	0.4
Total	121,200	100.0

To make Regional comparisons easier, the information contained in the above tables is summarised in Table 4.4.12 below.

Table 4.4.12 - PERCENTAGE SIZE DISTRIBUTION OF HOLDINGS BY REGION

	Size of Holding (Acres)				
Region	0 - 3.9	4 - 9.9	10 - 19.9	20 +	Total
Western	82.9	13.8	2.7	0.6	100.0
Central	94.7	4.8	0.5	-	100.0
Greater Accra	96.3	3.3	-	0.4	100.0
Eastern	97.6	2.0	0.4	-	100.0
Volta	95.1	4.3	0.6	-	100.0
Ashanti	87.8	8.7	2.4	1.1	100.0
Brong Ahafo	77.5	28.5	3.0	1.0	100.0
Northern	34.5	49.0	13.5	3.0	100.0
Upper West	83.5	14.6	1.9	-	100.0
Upper East	76.9	18.5	3.6	1.0	100.0
Total (Ghana)	84.4	12.3	2.6	0.7	100.0

Only Northern Region has less than 35 per cent of the holding below 4 acres in size whereas in other regions, 77 to 98 per cent of the holdings are in this category.

In the Central, Eastern, Volta and Upper West Regions, no holdings were more than 20 acres in size, and the percentage of holdings of 20 acres and above is below 4 per cent in the rest of

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the regions. Comparatively large holdings are predominant in Northern and Brong Ahafo Regions.

The total size of a holding is made up of the number of farms. Table 4.4.13 shows the percentage distribution of the number of farms in a holding for three size classes of holdings and by region.

Table 4.4.13 - SIZE OF HOLDINGS BY NUMBER OF FARMS IN HOLDING BY REGION

	PERCENTAGE											
	Holdings 0-3.9 acres				Holdings 4.0-9.9 acres				Holdings 10+ acres			
	FARM(S)				FARM(S)				FARM(S)			
Region	1	2	3	4+	1	2	3	4+	1	2	3	4+
Western	67	30	3	-	41	38	18	3	17	48	23	12
Central	74	23	3	-	38	40	15	7	10	40	30	20
Greater Accra	78	17	4	1	41	47	12	-	100	-	-	-
Eastern	70	25	3	2	14	61	21	4	-	40	-	60
Volta	71	23	5	1	24	41	33	2	-	31	38	31
Ashanti	68	27	4	1	17	57	24	2	6	52	28	14
Brong Ahafo	66	30	3	1	33	41	20	6	20	40	24	16
Northern	57	40	2	1	17	72	9	2	14	58	25	3
Upper West	67	7	16	10	7	41	43	9	-	17	66	17
Upper East	24	53	6	7	5	46	26	23	-	34	40	26
Total (Ghana)	67	27	5	1	23	53	18	6	12	49	27	12

About sixty-seven per cent of the holdings that are less than 4 acres in size are made up of one farm only. In the Greater Accra Region, more than three quarters of the holdings below 4 acres have one farm only.

About half of the holdings that are between 4 and 10 acres in size are made up of 2 farms. It is only in the Upper East Region that about twenty-three per cent of the holdings that are between 4 and 10 acres in size are made up of four or more farms.

Nearly half of the holdings that are more than 10 acres in size have two farms, while twenty-seven per cent are made up of three farms.

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In the Greater Accra Region, nearly all the farms that are more than 10 acres in size are made up of only one farm, while in the Eastern Region about 60 per cent of such holdings are made up of 4 or more farms. Thus there is absolute consolidation of large holdings in Greater Accra Region, but in the Eastern Region, large holdings have also larger number of farms as one would expect.

4.5. Number of Farms

The definition of "farm" or "parcel" as given in this report, as opposed to a field, ie., a plot within a parcel, is not clearly defined in Ghana. The figures given in this section thus provide only a general indication of the number of farms or fields and the extent of fragmentation.

Table 4.5.1 shows the number of holders and the number of farms operated by these holders. The average number of farms per holder varies from 1.1 (in Axim-Takoradi in Western Region) to 2.4 (in Lawra-Tumu District in Upper West Region).

Table 4.5.1 - NUMBER OF FARMS BY DISTRICT

Region and District	No. of Holders	No. of Farms	%	Average No. of Farms per Holder
Western Region	206,190	300,100	10.7	1.5
Axim-Takoradi	48,760	54,400	1.9	1.1
Tarkwa	43,290	63,800	2.3	1.5
Asankragwa	43,340	68,600	2.5	1.6
Wiawso	70,800	113,300	4.0	1.6
Central Region	217,510	285,000	10.1	1.3
Essiam	47,160	70,300	2.5	1.5
Cape Coast	38,030	48,600	1.7	1.3
Dunkwa	61,490	80,200	2.8	1.3
Swedru	70,830	85,900	3.1	1.2
Greater Accra Region	48,700	60,500	2.1	1.2
Greater Accra	48,700	60,500	2.1	1.2
Eastern Region	244,140	340,100	12.1	1.4
Akim Oda	50,700	92,000	3.3	1.8
Asamankese	42,310	55,200	2.0	1.3

.../-

Table 4.5.1 -(contd)

Region and District	No. of Holders	No. of Farms	%	Average No. of Farms p Holder
Koforidua	54,920	69,700	2.5	1.3
Akosombo	60,350	75,500	2.7	1.3
Kibi	17,270	22,700	0.8	1.3
Mpraeso	18,590	25,000	0.8	1.3
Volta Region	274,480	380,800	13.6	1.4
Sogakope	51,940	77,700	2.8	1.5
Keta	65,130	75,700	2.7	1.2
Ho	46,340	63,200	2.2	1.4
Kpando	44,430	60,900	2.2	1.4
Jasikan-Kete Krachi	66,640	103,300	3.7	1.6
Ashanti Region	314,250	466,700	16.6	1.5
Kumasi West	43,470	55,900	2.0	1.3
Kumasi East	44,910	59,300	2.1	1.3
Bekwai	42,750	62,300	2.2	1.5
Obuasi	32,800	49,700	1.8	1.5
Juaso-Mampong East	42,860	72,900	2.6	1.7
Mampong West	59,480	104,300	3.7	1.8
Offinso-Teppa	47,980	62,300	2.2	1.3
Brong Ahafo Region	252,669	384,200	13.7	1.5
Goaso	41,770	59,400	2.1	1.4
Sunyani	50,109	75,900	2.7	1.5
Dormaa	45,580	63,800	2.3	1.4
Wenchi West	30,570	37,900	1.4	1.2
Wenchi East	43,700	85,700	3.0	2.0
Atebubu	40,940	61,500	2.2	1.5
Northern Region	139,900	253,800	9.0	1.8
Damongo Salaga	33,800	57,500	2.0	1.7
Yendi East	21,810	43,000	1.5	2.0
Yendi West	21,740	43,800	1.6	2.0
Tamale	40,360	82,200	2.9	2.0
Gambaga	22,190	27,300	1.0	1.2
Upper West Region	30,960	69,400	2.5	2.2
Wa	10,720	19,200	0.7	1.8
Lawra-Tumu	20,240	50,200	1.8	2.5

..../-

Table 4.5.1 (contd)

Region and District	No. of Holders	No. of Farms	%	Average No. of Farms per Holder
Upper East Region	121,230	269,400	9.6	2.2
Navrongo	54,790	128,800	4.6	2.4
Bolgatanga	57,810	124,300	4.4	2.2
Bawku	8,630	16,300	0.6	1.9
Total (Ghana)	1,850,029	2,810,000	100.0	1.5

In the country as a whole, there are a total of about 2,810,0 farms operated by about 1,850,170 holders, giving an average of 1.5 farms per holder.

Table 4.5.2 gives by Region the percentage frequency distribution of the number of holders with different number of farms.

Table 4.5.2 - PERCENTAGE DISTRIBUTION OF NO. OF HOLDERS WITH DIFFERENT NUMBER OF FARMS

Region	PERCENTAGE OF HOLDERS WITH				
	1 Farm	2 Farms	3 Farms	4+Farms	Total
Western	62	31	6	1	100
Central	72	24	3	1	100
Greater Accra	77	18	4	1	100
Eastern	68	26	4	2	100
Volta	68	24	7	1	100
Ashanti	61	30	7	2	100
Brong Ahafo	59	32	7	2	100
Northern	30	59	9	2	100
Upper West	39	16	30	15	100
Upper East	25	40	22	13	100
Total (Ghana)	60	31	7	2	100

About ninety-one per cent of the holders in Ghana operate holdings that are made up of two farms or less. In the Upper West and Eastern Regions, a relatively higher percentage of holders operate holdings that are made up of three farms. More than half

/or more

the number of holders in the Northern Region have holdings that are made up of two farms.

While approximately one-seventh of the holders in Upper West and Upper East Regions have holdings made up of four or more farms, less than three per cent of holders in the rest of the country operate holdings with such number of farms.

CHAPTER V

AREA UNDER CROPS

5.1. Introduction

This chapter gives an analysis of the estimates of areas under the main crops grown in Ghana together with other related information on holders and holdings, and mean field sizes of the various crops in the districts and regions.

The estimates of crop areas given in this report refer to the areas on the ground as in mid-1984. The estimates are classified in most cases into (i) the area of the crop grown in pure stand or as a predominant component in the crop mixture and (ii) the area of the crop grown as subsidiary to one or two other crops in the mixture. The estimates for the area of the crop grown "mixed" with other crops include the entire area of all fields that contained an appreciable amount of the crop whether the crop was the predominant crop of the mixture or merely a minor constituent crop. No attempts have been made to derive "single crop equivalent"areas. Thus, for example, if a field was planted with maize, cassava and cocoyam, its entire area is recorded under each of the three constituent crops; in other words, this are has been counted three times

5.2. The Cereals

Maize is one of the few crops that are grown throughout the country. Table 5.2.1 gives the area under maize in the main season of 1984 classified into the area of maizw grown pure or predominant and that grown as a subsidiary crop in mixtures of crops.

Table 5.2.1 - AREA OF MAIZE BY DISTRICT AND BY TYPE OF PLANTING

Region and District	AREA UNDER MAIZE (ACRES)		
	Pure or Predominant	Subsidiary	Total
Western Region	113,850	78,860	192,710
Axim-Takoradi	4,890	30,110	34,990
Tarkwa	12,530	6,540	19,070
Asankragwa	48,790	28,560	77,350
Wiawso	47,640	13,650	61,290

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Table 5.2.1 (contd)

Region and District	AREA UNDER MAIZE (ACRES)		
	Pure or Predominant	Subsidiary	Total
Central Region	189,600	10,180	199,780
Cape Coast	36,900	440	37,340
Essiam	34,730	290	35,020
Dunkwa	58,940	4,340	63,280
Swedru	59,030	5,110	64,140
Greater Accra Region	100,370	4,340	104,710
Greater Accra	100,370	4,340	104,710
Eastern Region	194,460	8,190	202,650
Akim Oda	24,520	950	25,470
Asamankese	31,610	1,220	32,830
Koforidua	57,250	1,530	58,780
Akosombo	41,860	1,750	43,610
Kibi	30,740	2,070	32,810
Mpraeso	8,480	670	9,150
Volta Region	144,930	22,710	167,640
Sogakope	39,470	3,460	42,930
Keta	12,130	2,490	14,620
Ho	9,680	4,860	14,540
Kpando	25,740	340	26,080
Jasikan-Kete Krachi	57,910	11,560	69,470
Ashanti Region	169,580	49,550	219,130
Kumasi West	8,290	8,110	16,400
Kumasi East	5,410	-	5,410
Bekwai	8,940	12,330	21,270
Obuasi	14,500	1,620	16,120
Juaso Mampong East	31,640	3,920	35,560
Mampong West	76,020	13,050	89,070
Offinso-Teppa	24,780	10,520	35,300
Brong Ahafo Region	320,840	49,600	370,440
Goaso	55,780	6,310	62,090
Sunyani	77,120	6,710	83,830
Dormaa	41,390	15,540	56,930
Wenchi East	57,420	4,830	62,250
Wenchi West	53,380	4,200	57,580
Atebubu	35,750	12,010	47,760

.../-

Table 5.2.1 (contd)

Region and District	AREA UNDER MAIZE (ACRES)		
	Pure or Predominant	Subsidiary	Total
Northern Region	242,510	53,730	296,240
Damongo-Salaga	66,360	15,760	82,120
Yendi East	39,240	14,580	53,820
Yendi West	61,670	4,120	65,790
Tamale	28,629	14,160	42,780
Gambaga	46,620	5,110	51,730
Upper West Region	7,790	16,310	24,100
Wa	960	160	1,120
Lawra-Tumu	6,830	16,150	22,980
Upper East Region	6,480	3,880	10,370
Navrongo	2,930	1,950	4,880
Bolgatanga	3,550	1,940	5,490
Bawku	-	-	-
Total (Ghana)	1,490,410	297,360	1,787,770

Table 5.2.2 shows at regional level the total area of maize grown either as pure, predominant or subsidiary crop, and the percentage distribution by Region.

Table 5.2.2 - TOTAL MAIZE AREA BY REGION

Region	Total Area	%
Western	192,710	10.8
Central	199,780	11.2
Greater Accra	104,710	5.9
Eastern	202,650	11.3
Volta	167,640	9.3
Ashanti	219,130	12.3
Brong Ahafo	370,440	20.7
Northern	296,240	16.6
Upper West	24,100	1.3
Upper East	10,370	0.6
Total (Ghana)	1,787,770	100.0

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Upper West and Upper East Regions have the lowest maize area. The major producing regions are:- Brong Ahafo, Northern, Ashanti, Eastern, Western and Central Regions.

The table below shows the number of holders growing maize and their percentage by district and the mean area of maize per holder.

Table 5.2.3 - PERCENTAGE OF HOLDERS GROWING MAIZE AND MEAN MAIZE AREA BY DISTRICT

Region and District	No. of Holders in the District	No. of Holders Growing Maize	%	Mean Area per Holder
Western Region	206,190	127,550	61.9	1.5
Axim-Takoradi	48,760	18,330	37.6	1.9
Tarkwa	43,290	20,320	46.9	0.9
Wiawso	70,800	52,810	74.6	1.2
Asankragwa	43,340	36,090	83.3	2.1
Central Region	217,510	187,110	86.0	1.1
Cape Coast	38,030	32,020	84.2	1.2
Essiam	47,160	43,030	91.2	0.8
Dunkwa	61,490	56,720	92.2	1.1
Swedru	70,830	55,290	78.1	1.2
Greater Accra Region	48,700	32,730	67.2	3.2
Greater Accra	48,700	32,730	67.2	3.2
Eastern Region	244,140	169,750	69.5	1.2
Akim Oda	50,700	14,620	28.8	1.7
Asamankese	42,310	36,070	85.3	0.9
Koforidua	54,920	48,170	87.7	1.2
Akosombo	60,350	44,860	74.3	1.0
Kibi	17,270	16,050	92.9	2.0
Mpraeso	18,590	9,980	53.7	0.9
Volta Region	274,480	175,890	64.1	1.0
Sogakope	51,940	42,630	82.1	1.0
Keta	65,130	21,720	33.3	0.7
Ho	46,340	26,920	58.1	0.5
Kpando	44,430	31,850	71.7	0.8
Jasikan-Kete Krachi	66,640	52,770	79.2	1.3

..../-

Table 5.2.3 (contd)

Region and District	No. of Holders in the District	No. of Holders Growing Maize	%	Mean Area per Holder
Ashanti Region	314,310	167,200	53.2	1.3
Kumasi West	43,470	15,050	34.6	1.1
Kumasi East	44,910	11,590	25.8	0.5
Bekwai	42,750	15,720	36.8	1.4
Obuasi	32,860	12,080	36.8	1.3
Juaso Ma mpong East	42,860	36,350	84.8	1.0
Mampong West	59,480	42,410	71.3	2.1
Offinso-Teppa	47,980	34,000	70.9	1.0
Brong Ahafo Region	252,750	166,910	66.0	2.2
Goaso	41,770	32,100	76.8	1.9
Sunyani	50,190	38,990	77.7	2.1
Dormaa	45,580	24,220	53.1	2.3
Wenchi West	43,700	27,840	63.7	2.3
Wenchi East	30,570	24,500	80.1	2.2
Atebubu	40,940	19,260	47.0	2.5
Northern Region	139,900	119,610	85.5	3.0
Damongo-Salaga	33,800	25,970	76.8	3.2
Yendi East	21,810	20,560	94.3	2.6
Yendi West	21,740	19,140	98.0	3.4
Tamale	40,360	35,530	88.0	2.8
Gambaga	22,190	18,410	83.0	2.8
Upper West Region	30,960	18,720	60.5	1.3
Wa	10,720	2,400	22.4	2.1
Lawra-Tumu	20,240	16,320	80.6	1.4
Upper East Region	121,230	6,250	5.2	1.7
Navrongo	54,790	4,760	8.7	1.0
Bolgatanga	57,810	1,490	2.6	3.7
Bawku	8,630	-	-	-
Total (Ghana)	1,850,170	1,171,720	63.3	1.5

About 63 per cent of holders in Ghana grow maize. In Dunkw district of Central Region more than 90% and in Kibi district of the Eastern Region, about 9 % of the holders grow maize.

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The percentage of holders growing maize is however very low in the Upper East Region, where less than 16 per cent. of the holders cultivate the crop.

Rice is a cash crop of importance in Ghana and it is [illegible] being developed rapidly in the Northern and Upper Regions. Most of its area lies in the Northern and Upper Regions as will be seen from Table 5.2.4 below. Parts of Brong Ahafo, Western and Volta Regions also produce some amount of rice.

Table 5.2.4 - AREA OF RICE BY DISTRICT AND BY TYPE OF PLANTING

Region and District	AREA UNDER RICE (ACRES)		
	Pure or Predominant	Subsidiary	Total
Western Region	33,110	2,310	35,420
Axim-Takoradi	4,020	-	4,020
Tarkwa	9,400	-	9,400
Asankragwa	16,820	1,830	18,650
Wiawso	2,870	480	3,350
Central Region	2,410	-	2,410
Greater Accra Region	800	100	900
Eastern Region	2,770	100	2,870
Volta Region	9,400	5,220	14,620
Kpando	1,900	1,470	3,370
Jasikan-Kete Krachi	2,590	3,750	6,340
Other Areas	4,910	-	4,910
Ashanti Region	7,500	1,850	9,350
Bekwai	2,140	190	2,330
Other Areas	5,360	1,660	7,020
Brong Ahafo Region	14,120	15,550	29,670
Goaso	9,670	1,350	11,020
Atebubu	4,450	14,200	18,650
Northern Region	20,480	15,050	35,530
Damongo-Salaga	4,790	4,590	9,380
Yendi East	380	150	530
Yendi West	3,860	750	4,610
Tamale	10,770	9,180	19,950
Gambaga	680	380	1,060

.../-

Table 5.2.4 (contd)

Region and District	AREA UNDER RICE (ACRES)		
	Pure or Predominant	Subsidiary	Total
Upper West Region	1,800	4,630	6,430
Wa	280	-	280
Lawra-Tumu	1,520	4,630	6,150
Upper East Region	30,320	2,700	33,020
Navrongo	14,950	2,700	17,650
Bolgatanga	4,940	-	4,940
Bawku	10,430	-	10,430
Total (Ghana)	122,710	47,510	170,220

Table 5.2.5 gives for the major rice growing areas the number of holders growing rice and the mean area per holder.

Table 5.2.5 - PERCENTAGE OF HOLDERS GROWING RICE AND MEAN AREA P HOLDER

Region and District	Holders with Rice	% of Total Holders	Mean area per Holder
Western Region	14,230	6.9	
Axim-Takoradi	950	1.9	2.4
Tarkwa	3,230	7.5	4.2
Asankragwa	7,090	16.4	2.6
Wiawso	2,960	4.2	1.1
Central Region	2,290	1.1	1.1
Greater Accra Region	1,900	3.9	0.5
Eastern Region	2,220	0.9	1.3
Volta Region	9,780	3.6	1.5
Kpando	2,730	6.1	1.2
Jasikan Kete Krachi	3,640	5.5	1.7
Other Areas	3,410	2.1	1.2
Ashanti Region	8,250	2.6	1.1
Bekwai	2,270	5.3	1.0
Other Areas	5,980	1.9	1.3
Brong Ahafo Region	7,720	3.1	4.6
Goaso	2,900	6.9	3.8
Atebubu	4,820	11.8	3.7

..../-

Table 5.2.5 (contd)

Region and District	Holders with Rice	% of Total Holders	Mean Area Per Holder
Northern Region	11,920	8.5	2.9
Damongo-Salaga	3,360	9.9	2.7
Yendi East	350	1.6	1.5
Yendi West	1,660	7.6	2.8
Tamale	6,170	15.3	3.2
Gambaga	380	1.7	2.8
Upper West Region	5,730	18.5	1.1
Wa	960	9.0	0.3
Lawra-Tumu	4,770	23.6	1.3
Upper East Region	26,730	22.0	1.2
Navrongo	13,500	24.6	1.3
Bolgatanga	9,230	16.0	0.5
Bawku	4,000	46.3	2.6
Total (Ghana)	90,770	4.9	1.9

75 per cent of all holders growing rice are found in the Northern, Upper, Central and Volta Regions, and these operate on an average area of 1.1 to 2.9 acres.

Guinea corn is predominantly grown in the Northern, Upper East and Upper West Regions as shown in Table 5.2.6 below.

Table 5.2.6 - AREA OF GUINEA CORN BY DISTRICT AND BY PLANTING TYPE

Region and District	AREA UNDER GUINEA CORN (ACRES)		
	Pure or Predominant	Subsidiary	Total
Volta Region	5,970	11,150	17,120
Brong Ahafo Region	-	6,640	6,640
Northern Region	91,610	298,240	389,850
Damongo-Salaga	19,060	68,010	87,070
Yendi East	14,290	38,870	53,160
Yendi West	11,630	60,150	71,780
Tamale	38,770	80,100	118,870
Gambaga	7,860	51,110	58,970

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Table 5.2.6 (contd)

Region and District	AREA UNDER GUINEA CORN (ACRES)		
	Pure or Predominant	Subsidiary	Total
Upper West Region	27,340	10,050	37,390
Wa	4,700	160	4,860
Lawra-Tumu	22,640	9,890	32,530
Upper East Region	106,040	64,300	170,340
Navrongo	47,470	40,390	87,060
Bolgatanga	49,630	19,570	69,200
Bawku	8,940	4,340	13,340
Total (Ghana)	230,960	390,380	621,340

About 63 per cent of the area under the crop is planted wit it as subsidiary to other crops. The rest of the area has guine corn sown as pure or predominant.

The districts constituting the major part of the guinea corn are Navrongo and Bolgatanga.

Table 5.2.7 shows the number of holders growing guinea corn and their percentage for the districts important for the crop. Also given is the mean area per holder.

Table 5.2.7 - PERCENTAGE OF HOLDERS GROWING GUINEA CORN AND ITS MEAN AREA PER HOLDER

Region and District	Holders with Guinea corn	% of total Holders	Mean area per Holder
Volta Region	5,620	2.0	3.0
Brong Ahafo Region	3,180	1.3	2.1
Northern Region	122,490	87.6	3.2
Damongo-Salaga	25,380	75.1	3.4
Yendi East	19,650	90.1	2.7
Yendi West	21,430	98.6	3.3
Tamale	36,240	89.8	3.3
Gambaga	19,790	89.2	3.0
Upper West Region	21,800	70.4	1.7
Wa	3,040	28.4	1.6
Lawra-Tumu	18,770	92.7	1.7

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Table 5.2.7 (contd)

Region and District	Holders with Guinea corn	% of Total Holders	Mean area per Holder
Upper East Region	76,500	63.1	2.2
Navrongo	40,890	74.6	2.1
Bolgatanga	32,130	55.6	2.2
Bawku	3,480	40.3	3.8
Total (Ghana)	229,590	12.4	2.7

More than 60 per cent of all holders in the Northern, Upper East and Upper West Regions cultivate guinea corn. This percentage is however much higher in the Yendi West district of Northern Region where about 98 per cent of the holders cultivate guinea corn.

The average area for guinea corn per holder is the highest in the Bawku district of the Upper East Region.

The Millet crop is also predominantly grown in the Northern, Upper East and Upper West Regions, and it is usually grown in mixture with guinea corn.

As shown in Table 5.2.8 below about 40 per cent of the total area under millet is found in the Upper East Region and about 55 per cent in the Northern Region and the rest in the Upper West Region.

Table 5.2.8 - AREA OF MILLET BY DISTRICT AND BY PLANTING TYPE

Region and District	AREA UNDER MILLET (ACRES)		
	Pure or Predominant	Subsidiary	Total
Northern Region	40,520	274,960	315,480
Damongo-Salaga	5,760	55,180	60,940
Yendi East	330	42,360	42,690
Yendi West	280	45,300	45,580
Tamale	24,770	86,850	111,620
Gambaga	9,380	45,270	54,650
Upper West Region	20,170	9,190	29,360
Wa	700	400	1,130
Lawra-Tumu	19,470	8,790	28,260

Table 5.2.8 (contd)

Region and District	Pure or Predominant	Subsidiary	Total
Upper East Region	88,360	137,800	226,160
Navrongo	43,420	60,850	104,270
Bolgatanga	32,840	74,540	107,380
Bawku	12,100	2,410	14,510
Total (Ghana)	149,050	421,950	571,000

Table 5.2.9 shows the three regions of Ghana where millet is mainly grown, the number and percentage of holders growing crop and its mean area per holder.

Table 5.2.9 - PERCENTAGE OF HOLDERS GROWING MILLET AND ITS ME AREA PER HOLDER

Region and District	Holders with Millet	% of Total Holders	Mean ar per Hol
Northern Region	97,010	69.3	3.2
Damongo-Salaga	20,080	59.4	3.0
Yendi East	14,130	64.8	3.0
Yendi West	18,830	86.6	2.4
Tamale	24,310	60.2	2.6
Gambaga	19,660	88.6	2.8
Upper West Region	19,990	64.6	1.5
Wa	2,400	22.4	0.5
Lawra-Tumu	17,590	86.9	1.6
Upper East Region	82,590	68.1	2.7
Navrongo	40,890	74.6	2.6
Bolgatanga	38,220	66.1	2.8
Bawku	3,480	40.3	4.2
Total (Ghana)	199,590	10.8	2.9

About seven-tenth of the holders in the Northern, Upper East and Upper West Regions grow millet. The mean area per holder ranges from 0.5 acres (Wa District) to 4.2 acres (Bawku District). The mean area per holder for millet in Ghana is 2.9 acres.

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5.3. The Root Crops

Cassava is the most widespread root crop grown in the countr and forms an important part of the staple diet. Table 5.3.1 presents its area classified into area planted pure or predominantly with cassava and the area with cassava grown as a subsidiary crop in crop mixtures.

Table 5.3.1 - AREA UNDER CASSAVA BY DISTRICT AND BY PLANTING TY

Region and District	AREA UNDER CASSAVA (ACRES)		
	Pure or Predominant	Subsidiary	Total
Western Region	107,800	230,270	338,070
Axim-Takoradi	29,190	66,650	95,840
Tarkwa	29,260	22,440	51,700
Asankragwa	29,970	68,810	98,780
Wiawso	19,380	72,370	91,750
Central Region	28,460	171,260	199,720
Cape Coast	1,270	35,840	37,110
Essiam	8,520	33,230	41,750
Dunkwa	8,170	57,810	65,980
Swedru	10,500	44,380	54,880
Greater Accra Region	13,530	15,030	28,560
Greater Accra	13,530	15,030	28,560
Eastern Region	53,260	190,970	244,230
Akim Oda	24,460	31,620	56,080
Asamankese	5,870	30,520	36,390
Koforidua	4,640	51,800	56,440
Akosombo	13,580	42,920	56,500
Kibi	660	24,790	25,450
Mpraeso	4,050	9,320	13,370
Volta Region	76,620	160,560	237,180
Sogakope	11,250	33,410	44,660
Keta	17,060	10,750	27,810
Ho	11,720	9,130	20,850
Kpando	7,230	23,980	31,210
Jasikan-Kete Krachi	29,360	83,200	112,650
Ashanti Region	124,280	240,170	364,450
Kumasi West	25,980	14,230	40,210

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Table 5.3.1 (contd)

Region and District	AREA UNDER CASSAVA (ACRES)		
	Pure or Predominant	Subsidiary	Total
Kumasi East	22,170	9,320	31,490
Bekwai	18,490	27,740	46,230
Obuasi	19,320	21,630	40,950
Juaso-Mampong East	6,360	49,270	55,630
Mampong West	20,400	83,070	103,470
Offinso-Teppa	11,560	34,910	46,470
Brong Ahafo Region	68,050	292,540	360,590
Goaso	6,840	49,480	56,320
Sunyani	10,880	54,810	65,690
Dormaa	4,820	56,930	61,750
Wenchi West	9,640	59,380	69,020
Wenchi East	29,650	51,850	81,500
Atebubu	6,220	20,090	26,310
Northern Region	21,710	214,080	235,790
Damongo-Salaga	5,430	55,120	60,550
Yendi East	1,410	40,590	42,000
Yendi West	520	36,460	36,980
Tamale	14,350	80,060	94,410
Gambaga	-	1,850	1,850
Upper West Region	-	330	330
Upper East Region	-	-	-
Total (Ghana)	493,710	1,515,210	2,008,920

As stated earlier, all crop area figures given in this report refer to the total area on ground as in mid-1984. Therefore in the case of cassava which is a long duration crop, the figures given above refer to the total area under cassava as stood on ground in mid-1984, and not merely to the area plant or to the area harvested in 1984.

The above table reveals that 75 per cent of the area und cassava had this crop only as a subsidiary crop grown mixed w other crops.

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Table 5.3.2 presents at regional level the total area of cassava grown either as pure, predominant or subsidiary crop and their percentage distribution.

Table 5.3.2 - TOTAL CASSAVA AREA BY REGION

Region	Total Area	%
Western	338,070	16.8
Central	199,720	9.9
Greater Accra	28,560	1.4
Eastern	244,230	12.2
Volta	237,180	11.8
Ashanti	364,450	18.1
Brong Ahafo	360,590	17.9
Northern	235,790	11.7
Upper West	330	0.2
Upper East	-	-
Total (Ghana)	2,008,920	100.0

About 36 per cent of the total area under cassava is concentrated in Ashanti and Brong Ahafo Regions and virtually no cassava is grown in the Upper West and East Regions.

Table 5.3.3 shows by district the number of holders growing cassava and their percentage . The mean cassava area is also shown.

Table 5.3.3 - PERCENTAGE OF HOLDERS GROWING CASSAVA AND AREA PER HOLDER

Region and District	Holders with Cassava	% of Total Holders	Mean Area per Holder
Western Region	181,800	88.2	1.9
Tarkwa	41,790	96.5	1.2
Axim-Takoradi	39,600	81.2	2.4
Asankragwa	37,980	87.6	2.6
Wiawso	62,430	88.2	1.5
Central Region	188,060	86.5	1.1
Cape Coast	32,550	85.6	1.1
Essiam	44,360	94.1	0.9

..../-

Table 5.3.3 (contd)

Region and District	Holders with Cassave	% of Total Holders	Mean Area Per Holder
Dunkwa	57,000	92.7	1.2
Swedru	54,150	76.5	1.1
Greater Accra Region	32,780	67.3	0.9
Greater Accra	32,780	67.3	0.9
Eastern Region	226,010	92.6	1.1
Akim Oda	49,980	98.6	1.1
Asamankese	39,380	93.1	0.9
Koforidua	49,340	89.8	1.1
Akosombo	56,210	93.1	1.0
Kibi	15,490	89.7	1.6
Mpraeso	15,610	84.0	0.9
Volta Region	208,640	76.0	1.1
Sogakope	45,230	87.1	1.0
Keta	26,180	40.2	1.1
Ho	36,420	78.6	0.8
Kpando	37,090	83.5	0.8
Jasikan Kete Krachi	63,720	95.6	1.8
Ashanti Region	285,180	90.7	1.3
Kumasi West	40,310	92.7	1.0
Kumasi East	43,210	96.2	0.7
Bekwai	41,240	96.5	1.1
Obuasi	27,440	83.7	1.5
Juaso-Mampong East	38,310	89.4	1.5
Mampong West	55,020	92.5	1.9
Offinso-Teppa	39,650	82.6	1.2
Brong Ahafo Region	168,020	66.5	2.2
Goaso	30,120	72.1	1.9
Sunyani	32,360	64.6	2.0
Dormaa	28,720	63.0	2.2
Wenchi West	27,660	90.5	2.5
Werchi East	35,870	82.1	2.3
Atebubu	13,290	32.5	2.0
Northern Region	67,670	48.4	4.1
Damongo-Salaga	20,980	62.1	2.9
Yendi East	12,860	59.0	3.3
Yendi West	11,110	51.1	3.3

..../-

Table 5.3.3 (contd)

Region and District	Holders with Cassava	% of Total Holders	Mean Area per Holder
Tamale	21,960	54.4	4.3
Gambaga	760	3.4	1.9
Upper West Region	200	0.6	1.7
Lawra-Tumu	200	1.0	1.7
Total (Ghana)	1,358,360	73.4	1.5

Almost seventy-three per cent of the holders in Ghana grow cassava. In most districts in Central, Eastern, Ashanti and Volta Regions, their percentage is more than 80, but it is quite low in the Northern and Upper Regions.

Yam is another major root crop which is grown both as a subsistence and cash crop. Table 5.3.4 gives its area in pure and predominant stand as well as the area grown mixed with other crops with yam occupying a significant proportion.

Table 5.3.4 - AREA UNDER YAM BY DISTRICT AND BY PLANTING TYPE

	AREA UNDER YAM (ACRES)		
Region and District	Pure or Predominant	Subsidiary	Total
Western Region		45,660	45,660
Axim-Takoradi		1,460	1,460
Tarkwa		190	190
Asankragwa		20,830	20,830
Wiawso		23,180	23,180
Central Region		4,190	4,190
Dunkwa		1,120	1,120
Swedru		2,410	2,410
Other Areas		660	660
Eastern Region		22,770	22,770
Akim Oda		6,920	6,920
Asamankese		2,310	2,310
Koforidua		1,120	1,120
Kibi		3,680	3,680
Akosombo		6,250	6,250
Mpraeso		2,490	2,490

..../-

Table 5.3.4 (contd)

Region and District	AREA UNDER YAM (ACRES) Pure or Predominant	Subsidiary	T
Volta Region	31,750	15,100	46
Sogakope		1,770	1
Keta		-	
Ho		5,370	5
Kpando	1,080	340	1
Jasikan Kete Krachi	30,670	7,620	38
Ashanti Region	16,030	46,860	62
Kumasi West	70	4,130	4
Kumasi East		3,510	3
Bekwai	770	13,910	14
Obuasi		7,690	7
Juaso-Mampong East	620	9,790	10
Mampong West	14,570	5,310	19
Offinso-Teppa		2,700	2
Brong Ahafo Region	140,060	55,060	19
Goaso	280	7,380	
Sunyani	290	12,600	1
Dormaa	38,260	3,510	4
Wenchi West	6,610	26,870	3
Wenchi East	19,730	2,220	2
Atebubu	74,890	2,480	7
Northern Region	134,210	22,200	15
Damongo-Salaga	45,350	5,020	4
Yendi East	34,710	-	3
Yendi West	25,190	-	2
Tamale	28,570	14,270	4
Gambaga	390	6,910	
Upper West Region	9,640	6,680	1
Wa	8,050	-	
Lawra-Tumu	1,590	6,680	
Total (Ghana)	331,690	218,520	5

About sixty per cent of the area under yam is found either in pure stand or as a predominant crop in a mixture of crops; and about two-third of yam cultivation is concentrated in Brong Ahafo and Northern Regions.

The number of holders growing yam and their percentage are presented below in Table 5.3.5. by district.

Table 5.3.5 - PERCENTAGE OF HOLDERS GROWING YAM AND AREA PER HOLI

Region and District	Holders with Yam	% of Total Holders	Mean Area per Holder
Western Region	28,490	13.8	1.6
Axim-Takoradi	1,030	2.1	1.4
Asankragwa	10,560	24.4	2.0
Tarkwa	230	0.5	0.8
Wiawso	16,670	23.5	1.4
Central Region	4,360	2.0	2.0
Dunkwa	1,380	2.2	0.8
Swedru	1,890	2.8	1.2
Other Areas	990	1.1	1.1
Eastern Region	19,110	7.8	1.2
Akim Oda	2,660	5.6	2.4
Asamankese	3,010	8.5	0.6
Koforidua	1,440	2.6	0.8
Akosombo	7,770	11.9	0.8
Kibi	2,290	13.3	1.6
Mpraeso	1,740	9.4	1.4
Volta Region	26,920	9.8	1.7
Sogakope	1,100	2.1	1.6
Keta	-	-	-
Ho	3,530	7.7	1.5
Kpando	2,810	6.5	0.5
Jasikan-Kete Krachi	19,310	29.0	2.0
Ashanti Region	46,740	14.9	1.3
Kumasi West	2,310	5.3	1.8
Kumasi East	6,000	13.4	0.6
Bekwai	12,900	30.2	1.1
Obuasi	3,680	11.2	2.1
Juaso Mampong East	9,210	21.5	1.1
Mampong West	10,410	17.5	1.9
Offinso-Teppa	2,260	4.7	1.2

Table 5.3.5 (contd)

Region and District	Holders with Yam	% of Total Holders	Mean A per Ho
Brong Ahafo Region	91,620	36.3	2.1
Goaso	3,160	7.6	2.4
Sunyani	9,720	19.4	1.3
Dormaa	17,700	38.8	2.4
Wenchi West	14,380	47.0	2.3
Wenchi East	14,150	32.4	1.6
Atebubu	32,510	79.4	2.4
Northern Region	60,350	43.1	2.6
Damongo-Salaga	16,740	49.5	2.8
Yendi East	13,560	62.2	2.6
Yendi West	10,860	50.0	2.3
Tamale	17,000	42.1	2.5
Gambaga	2,190	9.9	2.5
Upper West Region	10,430	33.7	1.6
Wa	4,880	45.5	1.6
Lawra-Tumu	5,550	27.4	1.5
Total (Ghana)	288,040	15.7	1.9

About fifty-three per cent of holders growing yam in Gh are found in the Brong Ahafo and Northern Regions. More tha thirty per cent of holders in each of the two regions grow ya The Northern Region has the highest mean area per holder in country.

Cocoyam is the third major root crop popularly grown in Its area is presented by district in Table 5.3.6 in which, l yam in the previous tables, figures for the area of cocoyam mixed with other crops include the whole area of all fields contained a significant amount of cocoyam.

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Table 5.3.6 - AREA UNDER COCOYAM BY DISTRICT AND PLANTING TYPE

Region and District	AREA UNDER COCOYAM (ACRES)		
	Pure or Predominant	Subsidiary	Total
Western Region	4,690	154,260	158,950
Axim-Takoradi	170	2,870	3,040
Tarkwa	-	8,640	8,640
Asankragwa	-	44,330	44,330
Wiawso	4,520	98,420	102,940
Central Region	850	47,450	48,300
Cape Coast		2,020	2,020
Essiam		11,420	11,420
Dunkwa	850	26,890	27,740
Swedru		7,120	7,120
Eastern Region	2,070	133,060	135,130
Akim Oda	260	45,340	45,600
Asamankese		14,360	14,360
Koforidua		38,040	38,040
Akosombo	540	22,080	22,620
Kibi	1,050	8,330	9,380
Mpraeso	220	4,910	5,130
Volta Region	470	50,450	50,920
Ho	160	4,740	4,900
Kpando	310	6,500	6,810
Jasikan Kete Krachi		38,830	38,830
Other Areas		380	380
Ashanti Region	38,050	276,450	314,500
Kumasi West	2,830	29,150	31,980
Kumasi East	1,260	28,160	29,420
Bekwai	6,330	32,780	39,110
Obuasi	980	32,200	33,180
Juaso-Mampong East	5,870	52,870	58,740
Mampong West	16,710	66,720	83,430
Offinso Teppa	4,070	34,570	38,640
Brong Ahafo Region	19,050	250,770	269,820
Goaso	900	71,680	72,580
Sunyani	8,180	84,650	92,830
Dormaa	140	46,110	46,250
Wenchi West	330	13,360	13,690
Wenchi East	9,500	34,970	44,470
Atebubu	-	-	-
Total (Ghana)	65,180	912,440	977,620

Cocoyam is little grown in the Greater Accra, Upper East and Upper West Regions.

In the country as a whole, about ninety-three per cent of area under cocoyam has this crop grown as subsidiary to other crops grown on the same field. Thirty-three per cent of its total area in the country is located in the Ashanti Region.

Table 5.3.7 shows by district the number and percentage o: holders who grow cocoyam.

Table 5.3.7 - PERCENTAGE OF HOLDERS GROWING COCOYAM AND AREA P HOLDER

Region and District	Holders with Cocoyam	% of Total Holders	Mean Area per Holder
Western Region	98,970	48.0	1.6
Axim-Takoradi	1,630	3.3	1.9
Tarkwa	9,350	21.6	0.9
Asankragwa	20,580	47.5	2.2
Wiawso	67,410	95.2	1.5
Central Region	42,080	19.3	1.2
Cape Coast	1,120	2.9	1.8
Essiam	13,420	28.5	0.9
Dunkwa	21,790	35.4	1.3
Swedru	5,750	8.1	1.2
Eastern Region	118,700	48.6	1.1
Akim Oda	38,420	75.8	1.2
Asamankese	15,950	37.7	0.9
Koforidua	30,260	55.1	1.3
Akosombo	21,360	35.4	1.1
Kibi	5,210	30.2	1.8
Mpraeso	7,500	40.3	0.7
Volta Region	47,120	17.2	1.1
Ho	6,900	14.9	0.7
Kpando	8,980	20.2	0.8
Jasikan-Kete Krachi	30,760	46.2	1.3
Other Areas	480	-	0.8
Ashanti Region	237,860	75.7	1.3
Kumasi West	29,060	66.9	1.1
Kumasi East	41,080	91.5	0.7

Table 5.3.7 (contd)

Region and District	Holders with Cocoyam	% of Total Holders	Mean Area Per Holder
Bekwai	34,410	80.5	1.1
Obuasi	20,360	62.1	1.6
Juaso-Mampong East	35,700	83.3	1.6
Mampong West	43,370	72.9	1.9
Offinso-Teppa	33,880	70.6	1.1
Brong Ahafo Region	106,100	42.0	2.5
Goaso	35,380	84.7	2.1
Sunyani	30,140	60.1	3.1
Dormaa	19,850	43.5	2.3
Wenchi West	4,600	15.0	3.0
Wenchi East	16,130	36.9	2.8
Total (Ghana)	650,830	35.2	1.5

About 36 per cent of the total number of holders growing cocoyam in the country are located in Ashanti Region, about 18 p cent in the Eastern Region and about 16 per cent in the Brong Ah Region. In Ashanti Region, more than 75 per cent of the holders cultivate cocoyam.

Sweet potatoes are grown in Ghana on a small scale, mair in the Volta, Brong Ahafo and Northern Regions. The total area under the crop is estimated at about 14,800 acres, with this cr grown as a subsidiary to other crops in the crops mixtures.

5.4. The Pulses and Nuts

Groundnut is an important cash crop in the northern part the country. Table 5.4.1 shows the area of groundnuts classifie into the area grown pure or predominantly with groundnuts and t area with this crop grown as a subsidiary crop in the crops mix ture.

Table 5.4.1 - AREA UNDER GROUNDNUTS BY DISTRICT AND BY PLANTING

Region and District	Pure or Predominant	Subsidiary	Total
Volta Region	24,960	6,980	31,940
Ashanti Region	24,020	3,230	27,250
Brong Ahafo Region	32,850	21,290	54,140

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Table 5.4.1 (contd)

Region and District	AREA UNDER GROUNDNUTS (ACRES)		
	Pure or Predominant	Subsidiary	Total
Northern Region	12,840	125,450	138,290
Damongo-Salaga	2,420	11,130	13,550
Yendi East	1,300	12,740	14,040
Yendi West	570	12,489	13,050
Tamale	5,350	63,210	68,560
Gambaga	3,200	25,890	29,090
Upper West Region	6,050	4,880	10,930
Wa	400	460	860
Lawra-Tumu	5,650	4,420	10,070
Upper East Region	93,490	8,260	101,750
Navrongo	34,270	5,720	39,990
Bolgatanga	44,570	2,540	47,110
Bawku	14,650	-	14,650
Rest of Ghana	1,230	2,340	3,570
Total (Ghana)	195,440	172,430	367,870

About 27 per cent of the total area under groundnuts is found in the Upper East Region and another 37 per cent in the Northern Region.

Table 5.4.2 shows for the main groundnuts growing tracts the number of holders cultivating groundnuts and the percentage togeth with the mean area per holder.

Table 5.4.2 - HOLDERS GROWING GROUNDNUTS AND AREA PER HOLDER

Region and District	Holders with Groundnuts	% of Total Holders	Mean Area per Holder
Volta Region	20,600	7.5	1.6
Ashanti Region	16,460	5.2	1.6
Brong Ahafo Region	32,680	12.9	1.6
Northern Region	80,730	57.7	1.7
Damongo-Salaga	11,080	32.8	1.2
Yendi East	14,270	65.4	1.0
Yendi West	10,070	46.3	1.3
Tamale	33,550	83.1	2.0
Gambaga	11,790	53.1	2.5

..../-

Table 5.4.2 (contd)

Region and District	Holders with Groundnuts	% of Total Holders	Mean Area per Holder
Upper West Region	16,320	52.7	0.7
Wa	1,920	17.9	0.4
Lawra- Tumu	14,400	71.1	0.7
Upper East Region	100,860	83.2	1.0
Navrongo	40,890	74.6	1.0
Bolgatanga	52,770	91.3	0.9
Bawku	7,200	83.4	2.0
Rest of Ghana	3,810	-	0.9
Total (Ghana)	271,460	14.7	1.4

About three-fourth of the holders growing groundnuts live in the Northern and Upper Regions. The mean area per holder is large in Gambaga, Tamale and the Bawku districts.

The cultivation of Beans is mostly confined to Northern, Upper East and Upper West Regions/shown in Table 5.4.3 below. The figures for the area containing beans mixed with other crops inclu the entire area of fields that grow this crop to a significant extent.

Table 5.4.3 - AREA UNDER BEANS BY DISTRICT AND BY PLANTING TYP

	AREA UNDER BEANS (ACRES)		
Region and District	Pure or Predominant	Subsidiary	Total
Northern Region	650	63,110	63,760
Damongo-Salaga	580	5,730	6,310
Yendi East	70	4,460	4,530
Yendi West	-	12,370	12,370
Tamale	-	21,040	21,040
Gambaga	-	19,510	19,510
Upper West Region	280	36,210	36,490
Wa	-	4,700	4,700
Lawra-Tumu	280	31,510	31,790
Upper East Region	110	225,490	225,600
Navrongo	110	96,490	96,600
Bolgatanga	-	111,160	111,160
Bawku	-	17,840	17,840
Rest of Ghana	1,880	14,030	15,910

Beans is grown mostly as a subsidiary crop in crops mixtur About 66 per cent of their total area is found in the Upper East Region. Another 29 per cent is found in the Northern and Upper West Regions.

Table 5.4.4. shows the number of holders growing beans and their percentage in the different districts.

Table 5.4.4 - HOLDERS GROWING BEANS AND AREA PER HOLDER

Region and District	Holders with Beans	% of Total Holders	Mean ar per Hol
Northern Region	63,690	45.5	1.0
Damongo-Salaga	9,990	29.6	0.6
Yendi East	8,240	37.8	0.5
Yendi West	17,830	82.0	0.7
Tamale	18,170	45.0	1.2
Gambaga	9,460	42.6	2.1
Upper West Region	19,770	63.9	1.8
Wa	3,040	28.4	1.5
Lawra-Tumu	16,730	82.6	1.9
Upper East Region	82,040	67.7	2.7
Navrongo	40,100	73.2	2.4
Bolgatanga	37,310	64.5	3.0
Bawku	4,630	53.7	3.8
Rest of Ghana	34,160	2.2	0.5
Total (Ghana)	199,660	10.8	1.7

About 41 per cent of the total number of holders growing beans are found in the Upper East Region, and the mean area per holder is also highest in this region.

Bambara beans is grown mostly as a subsidiary crop in a mi ture of crops, as revealed by Table 5.4.5 which shows its area classified into pure or predominant stand and subsidiary stand i a mixture of crops.

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Table 5.4.5 - AREA UNDER BAMBARA BEANS BY DISTRICT AND BY PLANT TYPE

Region and District	AREA UNDER BAMBARA BEANS (ACRES)		
	Pure or Predominant	Subsidiary	Total
Upper East Region		164,770	164,770
Navrongo		48,240	48,240
Bolgatanga		31,950	31,950
Bawku		84,580	84,580
Rest of Ghana	600	2,540	3,140
Total (Ghana)	600	167,310	167,910

About 98 per cent of the area under the crop is found in the Upper East Region.

The number of holders growing bambara beans and their percentage are presented in table 5.4.6 together with the mean area per holder.

Table 5.4.6 - HOLDERS GROWING BAMBARA BEANS AND AREA PER HOLDER

Region and District	Holders with Bambara Beans	% of Total Holders	Mean Area per holder
Upper East Region	62,520	51.6	2.6
Navrongo	27,790	50.7	1.7
Bolgatanga	33,880	58.6	0.9
Bawku	850	9.8	1.9
Rest of Ghana	1,830	-	-
Total (Ghana)	64,350	3.5	1.6

Upper East Region accounts for nearly 97 per cent of the holders growing bambara beans.

5.5 Vegetables

Vegetable and Fruits, though not grown extensively, are of importance in various parts of the country. For vegetables, the same piece of land is often cultivated a couple of times during the year, and the area is counted each time of its cultivation.

Tomatoes are grown almost entirely as a subsidiary crop in a mixture of crops as shown by Table 5.5.1 below.

Table 5.5.1 - AREA UNDER TOMATOES BY REGION AND BY PLANTING TYPE

Region	AREA UNDER TOMATOES (ACRES)		
	Pure or Predominant	Subsidiary	Total
Western	1,230	42,730	43,960
Central	300	18,180	18,480
Greater Accra	320	26,690	27,010
Eastern	240	4,160	4,400
Volta	1,140	17,890	19,030
Ashanti	4,860	17,030	21,890
Brong Ahafo	1,010	83,670	84,680
Northern	610	16,100	16,710
Upper East	-	1,140	1,140
Upper West	-	490	490
Total (Ghana)	9,710	228,080	237,790

About 39 per cent of the area under tomatoes is in Brong Ahafo Region while Western Region accounts for 18 per cent.

Table 5.5.2 shows the number of holders growing tomaotes in the different regions and their percentage together with the mean area per holder.

Table 5.5.2 - HOLDERS GROWING TOMATOES AND AREA PER HOLDER

Region	Holders with Tomatoes	% of Total Holders	Mean Area per Holder
Western	31,510	15.3	1.4
Central	19,430	8.9	1.0
Greater Accra	10,350	21.3	2.6
Eastern	7,670	3.1	0.6
Volta	24,130	8.8	0.8
Ashanti	21,230	6.8	1.0
Brong Ahafo	34,330	13.6	2.5
Northern	5,480	3.9	3.0
Upper East	400	0.3	2.9
Upper West	490	1.6	1.0
Total (Ghana)	155,020	8.4	1.5

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gion	AREA UNDER PEPPER			AREA UNDER OKRO			AREA UNDER GARDEN EGGS		
	Pure or Predominant	Subsidiary	Total	Pure or Predominant	Subsidiary	Total	Pure or Predominant	Subsidiary	Total
stern	2,290	8,820	11,110	-	9,180	9,180		1,910	1,910
ntral	240	6,150	6,390	90	1,490	1,580	400	2,890	3,290
eater Accra	610	4,080	4,690	2,540	1,910	4,450	140	1,180	1,320
stern	3,830	2,360	6,190	300	1,810	2,110	-	950	950
lta	6,530	760	7,290	150	5,040	5,190	290	760	1,050
hanti	2,510	11,470	13,980	20	2,700	2,720	260	1,900	2,160
ong Ahafo	4,260	6,700	10,960	240	18,830	19,070	860	7,610	8,470
rthern	-	180	180	140	19,120	19,260	-	-	-
per West	-	1,260	1,260		150	150	-	-	-
per East	-	-	-		1,580	1,580	-	-	-
TAL (GHANA)	20,270	41,780	62,050	3,480	61,810	65,290	1,950	17,200	19,150

TABLE 5.5.4 - NUMBER OF HOLDERS GROWING PEPPER, OKRO AND GARDEN EGGS

gion	Holders with Pepper	% of Total Holders	Mean area per Holder	Holders with Okro	% of total Holders	Mean area per Holder	Holders with Garden	% of Total Holders	Mean area p Holder
stern	8,710	4.2	1.3	9,480	4.6	1.0	6,380	3.1	0.3
ntral	5,480	2.5	1.2	2,170		0.7	6,510	3.0	0.5
eater Accra	11,080	22.8	0.4	6,800	14.0	0.7	1,760	3.6	0.8
stern	9,060	3.7	0.7	3,200	1.3	0.7	1,250	0.5	0.8
lta	6,530	2.4	1.1	22,150	8.1	0.2	1,860	0.7	0.6
hanti	13,560	4.3	1.0	9,210	2.9	0.3	3,630	1.2	0.6
ong Ahafo	6,110	2.4	1.8	13,260	5.2	1.4	5,740	2.3	1.5
rthern	220	0.2	-	10,740	7.7	1.8	-	-	-
per West	390	1.3	3.2	880	2.8	0.2	-	-	-
per East	-	-	-	6,310	5.2	0.2	-	-	-
TOTAL	61,140	3.3	1.0	84,200	4.6	0.8	27,130	1.5	0.7

About 22 per cent of the tomato farmers in the country are found in the Brong Ahafo Region; and in Greater Accra Region, every fifth farmer cultivates tomatoes.

5.5. Pepper, Okro and Garden Eggs

Table 5.5.3 shows the area under pepper, okro and garden eggs with the usual break-down into pure or predominant plantings and mixed plantings.

For about two-thirds of its area, pepper is planted as a subsidiary crop in a mixture of crops. About 22 per cent of the total area under pepper in the country is found in Ashanti Region The crop is grown on a very small scale in the Northern and Upper West Regions.

A total of about 65,290 acres is under okro cultivation throughout the country, of which 94 per cent contains okro as a subsidiary crop in crops mixtures. The Northern Region accounts for more than one-fourth of the area under okro in the country.

The area under garden eggs in the country totals 19,150 acres of which over one-fourth grows the crop as a subsidiary crop in crops mixtures. About half of the total area under garden eggs cultivation is found in the Brong Ahafo Region.

Table 5.5.4 shows the number of holders growing pepper, okro and garden eggs and the percentage of such holders in the different regions along with the mean area per holder.

There are a total of 61,140 holders cultivating pepper throughtou the country. Of this number, 22 per cent are found in Ashanti Re Region and 18 per cent in Greater Accra Region. An insignificant number of holders are found growing pepper in the Northern and West Regions.

Of the total of 84,200 holders cultivating okro in the countr 26 per cent are in Volta Region and 15 per cent in the Brong Ahafo Region. In the Greater Accra Region, about 14 per cent of the total number of holders cultivate okro in the Eastern Region.

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A comparatively small number of holders cultivate garden eg throughout the country. Of the total number of 27,130 holders, about 24 per cent are in the Central Region, while another 23 per cent are in the Western Region.

5.6. Tree Crops

This section gives information regarding the major tree cro grown in Ghana and the area planted to these crops. No tree coun was carried out during the census and as such no estimate of the tree population is given.

Coconut is of major importance in the Western Region and of minor importance elsewhere as shown in Table 5.6.1 which gives it area under the two major classifications.

Table 5.6.1 - AREA UNDER COCONUT BY DISTRICT AND BY PLANTING TY

Region and District	AREA UNDER COCONUT (ACRES)		
	Pure or Predominant	Subsidiary	Total
Western Region	77,510	1,830	79,340
Axim-Takoradi	77,510	400	77,910
Tarkwa		130	130
Asankragwa		1,300	1,300
Other Regions	2,580	80	2,660
Total (Ghana)	80,090	1,910	82,000

Ninety-five per cent of the area containing coconut trees is within the Axim-Takoradi district where it is considered a majo cash crop; and about 97 per cent of its area grows it as a pure crop or a predominant crop in crops mixtures.

As shown in Table 5.6.2, of the total of 18,870 holders havi coconut on their holdings, about 83 per cent are located in the Axim Takoradi district of the Western Region, and the number of coconut holders constitute about 32 per cent of the total number of holders in the district.

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Table 5.6.2 - HOLDERS WITH COCONUT AND AREA PER HOLDER

Region and District	Holders with Coconut	% of Total Holders	Mean area per Holder
Western Region	16,430	8.0	4.8
Axim-Takoradi	2,,710	32.2	5.0
Tarkwa	290	0.7	0.4
Asankragwa	430	1.0	3.0
Other Regions	2,440	-	1.1
Total (Ghana)	18,870	1.0	4.3

Table 5.6.3 which gives at the regional level the area und oil palm classified into the usual ca' ories shows a total of 305,020 acres under oil palm cultivation in the country. About half of this area is found in Ashanti Region and a further 17 pe cent in the Western Region.

Table 5.6.3. - AREA UNDER OIL PALM BY REGION AND BY PLANTING T

Region and District	AREA UNDER OIL PALM (ACRES)		
	Pure or Predominant	Subsidiary	Total
Western	33,680	19,380	53,060
Central	8,860	9,320	18,180
Eastern	30,190	10,540	40,730
Volta	12,950	15,690	28,640
Ashanti	129,900	17,070	146,970
Brong Ahafo	14,630	2,810	17,440
Total (Ghana)	230,210	74,810	305,020

About 73 per cent of the area under oil palm is in pure sta or contains it as a predominant crop in the mixture of crops.

Table 5.6.4. shows the number of holders growing oil palm and their percentage in the different districts.

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Table 5.6.4 - HOLDERS GROWING OIL PALM AND AREA PER HOLDER

Region	Holders with Oil Palm	% of Total Holders	Mean Area per Holder
Western	23,050	11.2	2.3
Central	11,250	5.2	1.6
Eastern	11,290	4.6	3.6
Volta	8,550	3.1	3.3
Ashanti	14,760	4.7	9.8
Brong Ahafo	5,320	2.1	3.3
Total (Ghana)	74,220	4.0	4.1

Thirty-one per cent of the holders growing oil palm are in Western Region and another 20 per cent in Ashanti Region.

The highest mean area per holder for oil palm is in the Ashanti Region where the mean area per holder is 9.8 acres.

Of the 822,970 acres under plantain as shown in Table 5.6 below, 625,510 acres or about 76 per cent have this crop as a subsidiary to other crops in the mixture. About one-third of t area is in Ashanti Region while about 16 per cent is in Eastern Region.

Table 5.6.5 - AREA UNDER PLANTAIN BY DISTRICT AND BY PLANTING

Region and District	AREA UNDER PLANTAIN (ACRES)		
	Pure or Predominant	Subsidiary	Total
Western Region	45,040	132,530	177,570
Axim-Takoradi	1,190	22,030	23,220
Tarkwa	230	7,180	7,410
Asankragwa	16,970	44,080	61,050
Wiawso	26,650	59,240	85,890
Central Region	2,780	29,690	32,470
Cape Coast	330	4,060	4,390
Essiam	1,480	5,840	7,320
Dunkwa	420	15,370	15,790
Swedru	550	4,420	4,970

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Table 5.6.5 (contd)

Region and District	AREA UNDER PLANTAIN (ACRES)		
	Pure or Predominant	Subsidiary	Total
Eastern Region	34,520	97,130	131,65(
Akim Oda	10,460	24,180	34,64(
Asamankese	1,130	16,470	17,60(
Koforidua	880	13,690	14,57(
Akosombo	50	5,090	5,14(
Kibi	18,180	33,920	52,10(
Mpraeso	3,820	3,780	7,60(
Volta Region	2,660	21,590	24,25(
Ashanti Region	79,080	193,510	272,59(
Kumasi West	5,030	21,830	26,86(
Kumasi East	2,130	9,970	12,10(
Bekwai	13,830	23,960	37,79(
Obuasi	12,570	20,750	33,32(
Juaso-Mampong East	22,680	36,870	59,55(
Mampong West	12,370	40,780	53,15(
Offinso-Teppa	10,470	39,350	49,82(
Brong Ahafo Region	32,640	149,660	182,30(
Goaso	19,810	34,620	45,43(
Sunyani	6,860	61,100	67,96(
Dormaa	5,540	30,410	35,95
Wenchi West	1,090	5,530	6,62(
Wenchi East	8,340	18,000	26,34
Rest of Ghana	740	1,400	2,14
Total (Ghana)	197,460	625,510	822,97

The number of holders who grow plantain on their holdi and their percentage together with the mean area per holder a shown in Table 5.6.6.

Table 5.6.6 - HOLDERS WITH PLANTAIN AND AREA PER HOLDER

Region and District	Holders with Plantain	% of Total Holders	Mean per H
Western Region	73,710	35.7	2.
Axim-Takoradi	5,700	11.7	4.
Tarkwa	10,970	25.3	3.

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Table 5.6.6 (contd)

Region and District	Holders with Plantain	% of Total Holders	Mean area per Holder
Asankragwa	24,130	55.7	2.5
Wiawso	32,910	46.5	2.6
Central Region	29,780	13.7	1.1
Cape Coast	2,420	6.4	1.8
Essiam	7,960	16.9	0.9
Dunkwa	13,850	22.5	1.1
Swedru	5,550	7.8	0.9
Eastern Region	65,650	26.9	1.4
Akim Oda	24,300	47.9	1.1
Asamamkese	11,620	27.5	1.0
Koforidua	7,060	12.9	1.1
Akosombo	6,690	11.1	0.8
Kibi	8,160	47.2	1.9
Mpraeso	7,820	42.1	1.0
Volta Region	21,080	7.7	1.2
Ashanti Region	188,830	60.1	1.4
Kumasi West	20,570	47.3	1.3
Kumasi East	20,850	46.4	0.6
Bekwai	33,820	79.1	1.1
Obuasi	19,830	60.5	1.7
Juaso Mampong East	35,470	82.8	1.6
Mampong West	28,150	47.3	1.9
Offinso-Teppa	30,140	62.8	1.6
Brong Ahafo Region	73,440	29.1	2.5
Goaso	23,060	55.2	2.0
Sunyani	25,840	51.6	2.6
Dormaa	12,840	28.2	2.6
Wenchi West	2,360	7.7	2.8
Wenchi East	9,340	21.4	2.8
Rest of Ghana	1,030	-	2.1
Total (Ghana)	453,520	24.5	1.8

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One-fourth of the total number of holders in Ghana grow plantain on their holdings. In parts of Ashanti (Bekwai and Juaso-Mampong East districts), about eighty per cent of the holders cultivate plantain. The mean area per holder for plantain varies from 0.6 acres to 3.5 acres.

Sugar cane is a cash crop of major importance in two areas tha produce sugarcane to feed the two sugar factories at Asutuare and Komenda. These two factories are serviced by plantations near them and by sugarcane produced by out-growers who live within a few miles of the factories. Sugarcane is also grown on a small-scale by holders either for home consumption or for sale in the local market as cane.

Table 5.6.7 shows the area of sugarcane grown and the number of holders growing the crop. Also given is the mean area per holder.

Table 5.6.7 - HOLDERS GROWING SUGARCANE AND AREA OF SUGARCANE

Region	Holders Growing Sugarcane	Area of Sugarcane	Mean Area per Holder (Acres)
Western	4,910	7,560	1.5
Central	5,630	5,430	1.0
Greater Accra	670	260	0.4
Eastern	2,720	2,550	0.9
Volta	5,900	6,000	1.0
Ashanti	1,630	1,360	0.8
Brong Ahafo	3,040	9,230	3.0
Total (Ghana)	24,500	32,390	1.3

There is a total of 32,390 acres under sugarcane throughout the country of which 9,230 acres or 28 per cent is found in Brong Ahafo Region.

A total of 24,500 holders produce sugarcane out of which about 24 per cent are located in Volta Region.

The mean area per holder ranges from 0.4 acres in Greater Accra Region to 3.0 acres in Brong Ahafo Region with the national mean area per holder at 1.3 acres.

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CHAPTER VI

COMPARISON OF ESTIMATES FOR 1970 AND 1984

6.1. Introduction

In this chapter an attempt has been made to compare for the two census years 1970 and 1984 the estimates for a few major items such as (a) number of holders, (b) number of holdings by size and (c) areas of selected important crops. Possible explanations for variations have also been given.

6.2. Holders and Holdings

Table 6.1 shows comparative figures of the number of holders estimated for the years 1970 and 1984.

Table 6.1. - NO. OF HOLDERS IN 1970 AND 1984

Region	No. of Holders in 1970	No. of Holders in 1984	Percentage Increase
Western	68,100	206,190	202.8
Central	81,100	217,510	168.2
Greater Accra		48,700	
Eastern	148,200	244,140	97.6
Volta	108,600	274,480	152.7
Ashanti	147,700	314,250	112.8
Brong Ahafo	71,600	252,669	252.9
Northern	61,200	139,900	128.6
Upper West		30,960	-
Upper East	118,700	121,230	28.2
Total (Ghana)	805,200	1,850,029	129.8

At the time of the 1970 Census of Agriculture, Greater Accra Region was part of Eastern Region and the Upper West and East Regions were together.

The number of holders for the whole country shot up by 129.8% in 1984. A part of this increase is attributable to the rising population and increasing pressure on land. To a great extent it is also due to the fact that there was drought and bush-fire incidence throughout the country in 1983. This caused scarcity of food

6.3. Crops

Comparative figures for the areas under four major crops for the years 1970 and 1984 are given by Region in tables 6.3 to 6.4. Also given are the percentage change between the two years.

Table 6.3. - AREA UNDER MAIZE IN 1970 AND 1984

Region	Area under Maize in 1970 (Acres)	Area Under Maize in 1984 (Acres)	% Change
Western	73,000	192,710	164.
Central	90,000	199,780	122.
Greater Accra		104,710	
Eastern	161,000	202,650	30.
Volta	108,000	167,640	55.
Ashanti	116,000	219,130	89.
Brong Ahafo	121,000	370,440	206.
Northern	149,000	296,240	98.
Upper West		24,100	
Upper East	82,000	10,310	-58.
Total (Ghana)	900,000	1,787,770	98.

Table 6.4. - AREA UNDER RICE IN 1970 AND 1984

Region	Area Under Rice in 1970 (Acres)	Area Under Rice in 1984 (Acres)	% Change
Western	14,000	35,420	153.0
Central	2,000	2,410	20.5
Greater Accra	-	900	-
Eastern	3,000	2,870	- 25.7
Volta	16,000	14,600	- 8.8
Ashanti	10,000	9,350	- 6.5
Brong Ahafo	13,000	29,670	128.2
Northern	36,000	35,530	- 1.3
Upper West	42,000	6,430	- 6.1
Upper East		33,020	
Total (Ghana)	136,000	170,220	25.2

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Table 6.5. - AREA UNDER CASSAVA IN 1970 AND 1984

Region	Area Under Cassava in 1970 (Acres)	Area Under Cassava in 1984 (Acres)	%
Western	107,000	338,070	
Central	94,000	199,720	
Greater Accra		28,560	
Eastern	217,000	244,230	
Volta	150,000	237,180	
Ashanti	131,000	364,450	
Brong Ahafo	88,000	360,590	
Northern	13,000	235,790	1,
Upper West Upper East	5,000	330	.
Total (Ghana)	805,000	2,008,920	

Table 6.6. - AREA UNDER YAM IN 1970 AND 1984

Region	Area Under Yams in 1970 (Acres)	Area Under Yams in 1984 (Acres)	% Ch
Western	10,000	45,660	356
Central	16,000	4,190	-73
Greater Accra	-		
Eastern	30,000	22,770	-24
Volta	36,000	46,850	30
Ashanti	51,000	62,890	23.
Brong Ahafo	105,000	195,120	85.
Northern	127,000	156,410	23.
Upper West Upper East	51,000	16,320	-68.
Total (Ghana)	426,000	550,210	29.

Maize: Most regions showed increases in the area this crop in 1984 as compared to 19.0. The reasons are similar to those given above. It should be noted that when most people decide to go into farming, they mostly concentrate on the production of maize and cassava. Therefore any increase in the number of holde will cause a corresponding increase in the area under these crops.

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