

**PROVISIONAL MILITARY GOVERNMENT  
OF SOCIALIST ETHIOPIA**

**MINISTRY OF AGRICULTURE**

**AREA, PRODUCTION AND YIELD OF MAJOR CROPS  
FOR THE WHOLE COUNTRY AND BY REGIONS  
IN 1974/75—1978/79  
(1967 E.C.-1971 E.C.)**

1/1 ACC0001434

FW



PROVISIONAL MILITARY GOVERNMENT  
OF SOCIALIST ETHIOPIA

MINISTRY OF AGRICULTURE

የኢትዮጵያ ግንባርና ጥበቃ ሚኒስቴር  
ጥሬ ጥቅም ስራ  
ጥሬ ጥቅም ስራ

AGRICULTURE AND FIELD PRODUCTION  
FOR THE WHOLE COUNTRY AND BY REGION

IN 1967/68 - 1971/72  
(1967 E.C. - 1971 E.C.)

STATISTICS SECTION  
PLANNING AND PROGRAMMING DEPARTMENT

Opalve Selassie  
Method  
OCT 14, 1979

C O N T E N T S

	<u>Page</u>
Chapter I. METHODS OF ASSESSMENT OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS BY REGION	
1.1. Available Statistical Information.....	3
1.2. Method of Assessment of Area, Production and Yield by Region in 1974/75(1967E.C.) and 1975/76(1968 E.C.).....	4
1.3. Method of Assessment of Area, Production and Yield for Eritrea in 1974/75-1978/79	7
1.4. Method of Assessment of Area, Production and Yield of Major Crops for the whole Country.....	8
Chapter II. COMPARISON OF AREA UNDER MAJOR CROPS ESTIMATED FROM THE SECOND ROUND SURVEY AND THE AGRICULTURAL SAMPLE SURVEYS CONDUCTED IN 1974/75-1977/78	
2.1. Method of Comparison.....	10
2.2. Comparison of Area by Crop for the Whole Country.....	12
2.3. Comparison of Area by Crop and Region	13
Chapter III. RESULTS OF ASSESSMENT OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS FOR THE WHOLE COUNTRY IN 1974/75-1978/79	
3.1. Results of Assessment of Area, Production and Yield for Private Peasant Holdings in Main Season.....	17

II

	<u>Page</u>
3.2. Production of Major Crops for Belg (Second) Season.....	21
3.3. Area and Production of Major Crops for State Farms.....	24
3.4. Area and Production of Major Crops for "Co-operative" Farms.....	27
3.5. Area, Production and Yield of Major Crops for the Whole Country in 1974/75-1978/79.....	28
REFERENCES .....	43

A N N E X

AREA, PRODUCTION AND YIELD BY REGION AND CROP  
IN 1974/75 -1978/79

Tab. 1.1-1.14. Estimates of area under major crops in 1974/75-1978/79 .....	45-58
Tab. 2.1-2.14. Estimates of production of major crops in 1974/75-1978/79 ....	59-72
Tab. 3.1-3.14. Estimates of yield of major crops in 1974/75-1978/79 ....	73-86
Tab. 4.1-4.14. Area under different crops esti- mated according the Second Round Survey and the Sample Surveys in 1974/75-1977/78 .....	87-100

III

LIST OF TABLES

	<u>Page</u>
Tab. 1. Comparison of area under major crops estimated according to the second round survey and sample surveys in 1974/75-1977/78 by crop.....	4
Tab. 2. Comparison of area under major crops estimated according to the second round and sample surveys in 1974/75(1967E.C.)-1977/78(1970 E.C.) by region.....	5
Tab. 3. Estimates of area under major crops in Ethiopia in 1974/75(1967 E.C.)-1978/79(1971 E.C.) (Private Peasant Holdings-Main Season).....	19
Tab. 4. Estimates of production of major crops in Ethiopia in 1974/75(1967 E.C.)-1978/79 (1971 E.C.)(Private Peasant Holdings-Main season).....	20
Tab. 5. Estimates of yield of major crops in Ethiopia in 1974/75(1967 E.C.)-1978/79 (1971 E.C.)(Private Peasant Holdings-Main Season).....	22
Tab. 6. Estimates of production of major crops in Ethiopia in 1974/75(1967 E.C.)-1978/79(1971E.C.)(Peasant Holdings-Belg Season).....	23

## IV

	<u>Page</u>
Tab. 7. Estimates of area of major crops for State Farms in 1975/76(1968 E.C.)-1978/79(1971 E.C.).....	25
Tab. 8. Estimates of production of major crops for State Farms in 1975/76(1968 E.C.)-1978/79(1971 E.C.).....	26
Tab. 9. Estimates of area under major crops for co-operatives in 1975/76(1968 E.C.)-1978/79(1971 E.C.).....	29
Tab.10. Estimates of production of major crops for co-operatives in 1974/75(1967 E.C.)-1978/79(1971 E.C.).....	30
Tab.11. Estimates of area of major crops for the whole Ethiopia in 1974/75(1967 E.C.) - 1978/79(1971 E.C.).....	32
Tab.12. Percentages of area of major crops in Ethiopia by crop in 1974/75(1967 E.C.)-1978/79(1971 E.C.).....	33
Tab.13. Estimates of production of major crops for the whole Ethiopia in 1974/75(1967E.C.)-1978/79(1971 E.C.).....	38
Tab.14. Estimates of yield of major crops for the whole Ethiopia in 1974/75(1967E.C.)-1978/79(1971 E.C.).....	41

## PREFACE

In the years 1974/75 - 1978/79 (1967 - 1971 E.C.), the Statistics Section of the Ministry of Agriculture has carried out five agricultural sample surveys and published the results in different reports yearly (see [1], [2], [5], [6] and [8]). However, in these reports it was not possible to cover all regions and all types of holdings.

The purpose of this report is:

- 1) to present crop production results for the country as a whole and by region in the last five years in one publication;
- 2) to revise and adjust the results published in the previous reports;
- 3) to assess missing data for some regions using available information.

This report presents crop production results on area, production and yield of major crops for the country as a whole and by region for all types of holdings and for both Meher and Belg Seasons for the period 1974/75-1978/79 (1967-1971 E.C.). Results for the following crops are presented: teff, barley, wheat, maize, sorghum, millet, horse beans, chick peas, haricot beans, field peas, lentils, flax, neug and vetch.

The report is divided in three chapters with an annex. Chapter I is devoted to the evaluation of existing statistical data on crop production, and presentation of different methods of assessment of missing data regarding crop production. Chapter II deals with the comparison of the Second Round Survey results conducted in 1968-70 with the average area under major crops in

1974/75-1977/78. Area, production and yield of major crops for the country as a whole, for all types of holdings for both seasons for the years 1974/75-1978/79 (1967-1971E.C.) are presented in Chapter III. The Annex contains crop production results by region in tables 1.1-1.14, 2.1-2.14, and 3.1-3.14 for private peasant holdings in 1974/75-1978/79; and tables 4.1-4.14 are the comparison of area under different crops obtained from the Second Round Survey and the average area per year in 1974/75-1977/78.

This publication is strictly connected with efforts which have been undertaken by the Government of Socialist Ethiopia to introduce an integrated system of food and agricultural statistics. One of the purposes of this system is to assess the missing data, among others, regarding agricultural production.

This report was written by Dr. Jan Kordos, FAO Statistician, and Ato Yohannes Hagos, Statistician, Statistics Section of the Planning and Programming Department of the Ministry of Agriculture.

It is hoped that the publication of the report in general and the tables presented in the report in particular will help planners, researchers and analysts alike to gain a greater and deeper understanding of crop production situation in the country.

We would like to express our appreciation to all who have contributed towards the publication of this report. Any comments that would improve the quality of our reports are mostly welcome.

Teshome Tafari

~~Signature~~

Acting Head

Planning and Programming  
Department

Addis Ababa, Sep. 1979

## Chapter I

### METHODS OF ASSESSMENT OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS BY REGION

#### 1.1. Available Statistical Information

During last five years, i.e. in 1974/75(1967 E.C.)-1978/79(1971 E.C.), a crop production survey was conducted each year. The survey results, i.e. area under major crops, production and yield of these crops, were published in five volumes (see [1, 2, 5, 6 and 8]). However, it is necessary to admit that not all 14 regions were covered each year, and the size of sample was too small to give estimates by regions with adequate precision.

In 1974/75(1967 E.C.) the crop production survey was carried out in 14 regions, but the sample size of about 2.5 thousand holdings has given required estimates at national level. Similar survey was conducted in 1975/76(1968 E.C.), but Eritrea was excluded. In 1976/77(1969 E.C.) the size of sample increased twice i.e. over 5 thousand holdings were selected and sample design was improved. The survey results were published at national level as well as at regional level, but Eritrea and Tigray were not covered. In 1977/78(1970 E.C.) the survey was carried out only in 10 regions, excluding Bale, Eritrea, Hararge and Tigray (Ogaden war). Next year, 1978/79 (1971 E.C.) the survey covered 12 regions, excluding Eritrea and Tigray.

As can be seen from the above review of crop production surveys conducted during last five years, some regions were not covered, for others results were not presented since the size of sample was too small (in 1974/75 and 1975/76).

For different statistical analysis, we need estimates of area under major crops, yield and production of these crops by region. To obtain required crop production results by region in 1974/75 - 1978/79, we have applied different methods of assessments which are presented below. One of the accepted methods utilizes also results of the Second Round of the National Sample Survey conducted by Central Statistical Office in 1968 - 1970 (see [7] ). This survey covered 13 regions (excluding Eritrea) and gives estimates of area under major crops by region.

1.2. Method of Assessment of Area, Production and Yield by Region in 1974/75(1967 E.C.) and 1975/76(1968E.C)

First, area under major crops will be assessed using the following available information:

- a) the Second Round Survey (by region and totals),
- b) the crop production surveys in 1974/75 and 1975/76(totals),
- c) the crop production surveys in 1976/77 and 1977/78(by region and totals).

Let us accept the following notions and assumptions. area under crop in question in the  $i$ -th region and the  $r$ -th year will be denoted by  $X_{ir}$ ;  $i=1, 2, \dots, 14$ ; and  $r$  is equal:

- 1 for 1969/70 (the Second Round Survey),
- 2 for 1970/71,
- .....
- 6 for 1974/75,
- 7 for 1975/76,
- 8 for 1976/77,
- 9 for 1977/78
- 10 for 1978/79

Total area under crop in question is denoted by  $X_{.r}$  for the  $r$ -th year, i.e.  $X_{.1}$  for 1969/70;  $X_{.6}$  for 1974/75;  $X_{.7}$  for 1975/76;  $X_{.8}$  for 1976/77, and  $X_{.9}$  for 1977/78.

We want to assess  $X_{i6}$  and  $X_{i7}$  using following data:

$X_{i1}, X_{i8}, X_{i9}, X_{.1}, X_{.6}, X_{.7}, X_{.8}$ , and  $X_{.9}$  as well as distances between years.

We have assumed that  $X_{i6}$  and  $X_{i7}$ ,  $i=1, 2, \dots, 14$  can be expressed by:

$$\frac{X_{.6}}{X_{.r}} \times X_{ir} \quad \text{and} \quad \frac{X_{.7}}{X_{.r}} \times X_{ir} \quad \text{respectively,}$$

where  $r = 1, 8, \text{ and } 9$ .

Since for each  $X_{i6}$  and  $X_{i7}$  we can get three different assessments, then we accept a linear combination of them, i.e.

$$X_{i6} = a_{16} \frac{X_{.6}}{X_{.1}} X_{i1} + a_{86} \frac{X_{.6}}{X_{.8}} X_{i8} + a_{96} \frac{X_{.6}}{X_{.9}} X_{i9} \quad (1)$$

$$X_{i7} = a_{17} \frac{X_{.7}}{X_{.1}} X_{i1} + a_{87} \frac{X_{.7}}{X_{.8}} X_{i8} + a_{97} \frac{X_{.7}}{X_{.9}} X_{i9} \quad (2)$$

where  $a_{16}, a_{86}, a_{96}, a_{17}, a_{87}$ , and  $a_{97}$  are coefficients to be determined.

Since  $\sum_{i=1}^{14} X_{i6} = X_{.6}$  and  $\sum_{i=1}^{14} X_{i7} = X_{.7}$ , then it is easy to show that

$$\begin{aligned} a_{16} + a_{86} + a_{96} &= 1 \\ a_{17} + a_{87} + a_{97} &= 1 \end{aligned} \quad (3)$$

To solve equations (1) and (2), we must first find coefficients  $a_{st}$ , where  $t=6$  or  $7$ ;  $s=1,8$ , or  $9$ .

To solve the equation (3) we have assumed that coefficients  $a_{st}$  are inversely proportional to the distance between years  $s$  and  $t$ , i.e.

$$a_{st} = a_t \times \frac{1}{|s-t|} \quad (4)$$

where  $|s-t|$  is the distance between years  $t$  and  $s$ ,  
 $a_t$  - the coefficient to be determined from (3).  
From (3) and (4) we obtain:

for  $t=6$ :

$$a_6 = \frac{1}{\frac{1}{5} + \frac{1}{2} + \frac{1}{3}} = \frac{30}{31},$$

then from (4) we get:

$$a_{16} = \frac{1}{5} \times \frac{30}{31} = \frac{6}{31},$$

$$a_{86} = \frac{1}{2} \times \frac{30}{31} = \frac{15}{31},$$

$$a_{96} = \frac{1}{3} \times \frac{30}{31} = \frac{10}{31}.$$

For  $t=7$ :

$$a_7 = \frac{1}{\frac{1}{6} + 1 + \frac{1}{2}} = \frac{6}{10},$$

then

$$a_{17} = \frac{1}{6} \times \frac{6}{10} = \frac{1}{10},$$

$$a_{87} = 1 \times \frac{6}{10} = \frac{6}{10},$$

$$a_{97} = \frac{1}{2} \times \frac{6}{10} = \frac{3}{10}.$$

Finally, from (1) and (2) we obtain

$$X_{i6} = \frac{6}{31} \cdot \frac{X_{.6}}{X_{.1}} X_{i1} + \frac{15}{31} \cdot \frac{X_{.6}}{X_{.8}} X_{i8} + \frac{10}{31} \cdot \frac{X_{.6}}{X_{.9}} X_{i9} \quad (5)$$

$$X_{i7} = 0.1 \cdot \frac{X_{.7}}{X_{.1}} X_{i1} + 0.6 \cdot \frac{X_{.7}}{X_{.8}} X_{i8} + 0.3 \cdot \frac{X_{.7}}{X_{.9}} X_{i9} \quad (6)$$

where  $i = 1, 2, \dots, 13$  (excluding Eritrea).

Using formulae (5) and (6), area under major crop by region in 1974/75 (1967 E.C.) and 1975/76 (1968 E.C.) has been assessed. The results are presented in Annex (tables 1.1-1.14, excl. 1.3). Yields by crop and region in 1974/75 and 1975/76 were recalculated for each region, and production was calculated as a product of area under crop in question and yield of this crop. Results are given in Annex. Area, production and yield of major crops in Eritrea region have been assessed as given in next section.

### 1.3. Method of Assessment of Area, Production and Yield for Eritrea in 1974/75-1978/79

In Eritrea region crop production survey was conducted by complete enumeration of villages each year in 1960-1976 (see [4]). Village's officials were interviewed and

assessed area under different crops and production of these crops. As we know from our experience, estimates of area are usually underestimated slightly, and for this reason we have accepted them without correction, i.e. for years 1974/75 and 1975/76. For years 1976/77, 1977/78 and 1978/79 projection has been used according to time series in 1960-1976. Power function was accepted for assessment of area under different crops in consecutive years.

Production is usually underestimated significantly, and for this reason, we have corrected yield reported by farmers according our findings in 1974/75-1978/79. Production was calculated as a product of area under crop and yield of this crop.

X 1.4. Method of Assessment of Area, Production and Yield of Major Crops for the whole Country

In two preceding sections of this chapter, methods of assessment of area, production and yield of major crops for private peasant holdings by region for main season are presented. Results of these assessments are given in Annex (tables 1.1-1.14, 2.1-2.14 and 3.1-3.14). To obtain area and production of major crops in Ethiopia as a whole, i.e. for all regions, all types of holdings and both seasons. to area and production of private peasant holdings in main season should be added:

- (a) production of private peasant holdings in belg season (second season),
- (b) area and production of state farms,
- (c) area and production of co-operative farms.

For 1976/77, 1977/78 and 1978/79, belg crop production, area and production of state farms, and area and production of co-operative farms are given in [2], [3] and [8].

For 1974/75 and 1975/76 belg production has been assessed as follows. For each crop, the mean ratio of belg production to the main season production has been calculated, i.e.

$$b = \frac{1}{3} \left( \frac{B_{69}}{P_{69}} + \frac{B_{70}}{P_{70}} + \frac{B_{71}}{P_{71}} \right)$$

where  $B_i$  stands for belg production in the i-th year  
(i = 69, 70 and 71),

$P_i$  - production of main season in the i-th year,  
(i as above).

Belg production for 1974/75 (1967 E.C) and 1975/76 (1968 E.C.) is equal to:  $B_{67} = bxP_{67}$  and  $B_{68} = bxP_{68}$  respectively. Results are given in chapter III, table 6.

Area and production for state farms (commercial farms in 1974/75) have been accepted according to available documents of the State Farm Development Authority (see [10]).

## Chapter II

### COMPARISON OF AREA UNDER MAJOR CROPS ESTIMATED FROM THE SECOND ROUND SURVEY AND THE AGRICULTURAL SAMPLE SURVEYS CONDUCTED IN 1974/75 - 1977/78

#### 2.1. Method of Comparison

In 1968-1970, the Central Statistical Office carried out the Second Round of the National Sample Survey which covered 13 regions with the exclusion of Eritrea (see [7] ). The size of sample was rather high and about 50 thousand holdings were investigated. Among other characteristics, the area under crops by region was estimated.

Again, between 1974/75 - 1977/78, the Ministry of Agriculture conducted four agricultural sample surveys which covered private peasant holdings in all regions in 1974/75, Eritrea was excluded in 1975/76; Eritrea and Tigray were not covered in 1976/77 and 1978/79, and Bale and Hararge in 1977/78. These series of surveys enabled the estimation of area, production and yield of major crops in the country. The size of sample investigated in the agricultural sample surveys was nearly 10 times smaller than those investigated in the Second Round Survey which made the precision of estimates on regional level very low. Therefore, to increase the precision of estimates in the agricultural sample surveys carried out between 1974/75-1977/78, the mean of the area under crop in question per year was calculated. Since three independent samples were selected for the agricultural sample surveys in 1974/75-1977/78, this resulted in the increase of the precision for the mean area nearly by two-fold. Therefore, we are going to compare the Second Round Survey results with the mean area per year obtained from the agricultural sample surveys conducted in 1974/75-1977/78.

To compare the estimates obtained from the Second Round Survey with their corresponding estimates obtained from the series of the agricultural sample surveys, the standard errors for these estimates are needed. The standard errors of the mean area for the agricultural sample surveys between 1974/75-1977/78 were calculated from available publications (see [1], [2], [5] and [8]). Since the standard errors for the estimates obtained from the second Round Survey were not published, we had to employ some method to assess these errors. This was roughly possible if we accepted the assumption that the relative variance of sampling error estimated for the Second Round Survey was ten times smaller than for the agricultural sample survey 1976/77 (1969 E.C.) for which the sampling errors have been published (see [8]). This was because the size of sample was ten times bigger during the Second Round Survey than during the agricultural sample survey conducted in 1976/77 (1969 E.C.).

Now, using this rough assumption, it was further possible to assess the standard errors for the estimates obtained from the Second Round Survey, and the introduction of a statistical test to verify the hypothesis whether the differences in the estimates obtained for these two periods are statistically significant. To verify this hypothesis, we have applied the following test:

$$T = \frac{A_{sr} - A_{as}}{s(A_{sr} - A_{as})}$$

where  $A_{sr}$  stands for the estimate of area under crop in question according to the Second Round Survey;

$A_{as}$  - the mean area under crop in question estimated according to agricultural sample survey carried out in 1974/75 - 1977/78,

$s(A_{sr} - A_{as})$  - the standard error of the difference  $A_{sr} - A_{as}$  which is calculated from the formula:

$$s(A_{sr} - A_{as}) = \sqrt{s^2(A_{sr}) + s^2(A_{as})}$$

where  $s(A_{sr})$  is the standard error of the estimate  $A_{sr}$  obtained from the Second Round,

$s(A_{as})$  - the standard error of the estimate  $A_{as}$  obtained from the agricultural sample surveys.

This test has been applied to compare the area under major crops obtained from the Second Round Survey and the mean area from the agricultural sample surveys in 1974/75-1977/78 by crop, and for the total area under major crops by region.

## 2.2. Comparison of Area by Crop for the Whole Country

The estimates of area under major crops obtained from the Second Round Survey and the agricultural sample surveys in 1974/75 - 1977/78 by crop are given in table 1. As can be seen from this table, the total area under major crops increased by 0.5 million hectares, and according to the applied test, the increase was found to be significant, if we accept a level of significance equal to 0.05. Applying the same test to the estimates obtained for different crops

in these two periods, one can see that there was no significant change in area for maize, sorghum, chick peas, and flax. There was significant increase of area for teff (0.21 million hectares), wheat (0.17 million hectares), millet (0.06 million hectares), horse beans (0.08 million hectares), haricot beans (0.02 million hectares), lentils (0.04 million hectares) and neug (0.07 million hectares). Area significantly decreased for barley (0.1 million hectares) and field peas (0.05 million hectares).

### 2.3. Comparison of Area by Crop and Region

Comparisons of area by crops and regions are given in the Annex (tables 4.1-4.14). Here we compare the total area under major crops by region applying the above described statistical test. The results of comparison of total area by region obtained from the two surveys are given in table 2. As one can see from this table, during these two periods, the total area under major crops has not changed significantly in Arssi, Bale, Illubabor, Tigray and Wollo. The total area under major crops increased significantly in Gojam, Gondar, Kefa, Sidamo, and Wollega. The decrease is estimated in Gamo Gofa and Hararge.

The above comparisons are correct if we assume that the same weredas were covered by the Second Round Survey and the Agricultural Sample Surveys and no administrative changes had taken place between these two periods.

Table 1

COMPARISON OF AREA UNDER MAJOR CROPS ESTIMATED  
ACCORDING TO THE SECOND ROUND SURVEY AND SAMPLE  
SURVEYS IN 1974/75-1977/78 BY CROP\*\*

Crop	Estimate from:		Diffe- rence col.3 -col.2	Sta- tistic T
	the Se- cond Round survey	Sample Surveys in 1974/75 -1977/78		
Thousand hectares				
(1)	(2)	(3)	(4)	(5)
Teff	1057.0	1269.8	212.8	3.18*
Barley	776.0	675.7	-100.3	-1.98*
Wheat	388.6	564.7	174.1	4.06*
Maize	686.9	717.3	30.4	0.57
Sorghum	719.0	667.5	51.5	0.86
Millet	158.8	215.7	56.9	2.47*
Horse beans	200.5	283.3	82.8	2.90*
Chick peas	135.3	148.2	12.4	0.68
Haricot beans	23.4	44.0	20.6	3.26*
Field peas	159.3	110.3	-49.0	-3.80*
Lentils	26.0	68.1	42.1	4.84*
Flax	42.1	49.0	6.9	0.76
Neug	73.1	141.7	68.6	4.80*
Vetch	17.3	35.3	18.0	2.30*
TOTAL	4463.8	4990.6	526.8	3.55*

\* Difference statistically significant.

\*\* Excluding Eritrea.

Table 2

COMPARISON OF AREA UNDER MAJOR CROPS ESTIMATED  
ACCORDING TO THE SECOND ROUND SURVEY AND SAMPLE  
SURVEYS IN 1974/75(1967E.C.) - 1977/78(1970E.C)  
BY REGION

Region	Estimate from:		col.3 -col.2	Stati- stic T
	the second Round Survey	the Agri- cultural Surveys in 1974/5-77/8		
Thousand hectares				
(1)	(2)	(3)	(4)	(5)
Arssi	412.3	456.6	44.3	1.38
Bale	177.2	129.9	-47.3	-1.82
Gondar	565.6	680.4	114.8	2.40*
Gamo Goffa	108.5	76.4	-32.1	-2.41*
Gojam	340.0	593.2	253.2	4.29*
Hararge	346.0	247.8	-98.2	-5.02*
Illubabor	163.6	139.2	-24.4	-1.49
Kefa	156.0	292.5	136.5	4.27*
Shoa	1259.6	1273.9	14.3	-0.15
Sidamo	86.7	144.5	57.8	3.22*
Tigrari	236.5	270.8	34.3	0.96
Wollega	395.0	472.8	77.8	2.49*
Wollo	216.8	212.6	-4.2	0.16
TOTAL	4463.8	4990.6	526.8	3.55*

\* Difference statistically significant.

Referring to results of area estimates in two periods presented in the Annex by crop and region, we would like to give some explanation of area change.

Total area under teff increased and this was mainly caused by teff area increase in Gojam, Kefa, Sidamo and Wollega. Nearly the same area in both periods is estimated for Arssi, Gondar, Gamo Gofa, Illubabor, Shoa, Tigrai and Wollo. It seems that some decrease of teff area is estimated in Bale and Hararge.

Area under barley decreased for the whole country and it was mainly caused by decrease in Arssi, Shoa and Wollo. Some increase is estimated in Gojam, Kefa and Sidamo.

Increase of total area under wheat is mainly caused by increase in Arssi, Gojam, Kefa, Sidamo and Tigrai. For other regions, there seems no significant change.

There are no significant changes in area under maize and sorghum by region.

Increase of area under horse beans is estimated in Arssi, Gondar, Gojam, Kefa, and Wollo.

It seems that area under chick peas and flax show no significant changes by region.

Area under haricot beans increased significantly in Arssi and Shoa, as well as under lentils.

Decrease of total area under field peas is caused mainly by decrease in Shoa and Wollo.

Area under neug increased mainly in Gondar and Gojam.

We have not applied any statistical test for comparison of area under different crops by crop and region. This rough analysis shows that for majority of regions changes in two periods look not significant, but for some regions, mentioned above, differences seem quite significant.

## Chapter III

### RESULTS OF ASSESSMENTS OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS FOR THE WHOLE COUNTRY IN 1974/75-1978/79

#### 3.1. Results of Assessment of Area, Production and Yield for Private Peasant Holdings in Main Season

Area, production and yield of major crops for private peasant holdings for main season by region have been assessed according to the methods described in chapter I of this report. Results of these assessments are given in Annex (tables 1.1-1.14, 2.1-2.14 and 3.1-3.14). For the whole country, i.e. for 14 regions, area, production and yield of major crops for private peasant holdings for main season are given in tables 3, 4 and 5 respectively.

As may be seen from table 3, total area under major crops was nearly the same in 1974/75 and 1975/76 (1967 and 1968 E.C.), i.e. 5.3 million hectares, and decreased to 5.0 million hectares in 1976/77. In 1977/78 and 1978/79, total area was 5.2 million hectares and 5.4 million hectares respectively. However, there were significant changes of area under different crops in 1974/75-1978/79. After Land Reform Proclamation in March 1975, area under some crops changed significantly in 1975/76 (1968 E.C.) compared to previous year.

Thus, the increase was observed for:

tuff (from 1123.7 th. ha to 1403.2 th. ha),  
millet (from 204.5 th. ha to 377.1 th. ha), and  
neug (from 98.5 th. ha to 234.3 th. ha).

The decrease of area was reported for:

barley (from 759.9 th. ha to 543.3 th. ha),

wheat (from 759.3 th. ha to 552.3 th. ha),  
haricot beans (from 67.1 th. ha to 40.3 th. ha),  
lentils (from 115.4 th. ha to 48.1 th. ha).

These changes were temporary for barley, millet and neug, and in 1976/77 (1969 E.C.) area under these crops was very close to the level of 1974/75. However, for wheat and lentils area under these crops was significantly lower in next consecutive years than in 1974/75.

As one can see from table 4, total production of major crops was the highest in 1975/76 (1968 E.C.), i.e. 50.4 million quintals, during the last five years, followed by 47.8 million quintals in 1976/77, 43.5 million quintals in 1978/79, 43.3 million quintals in 1977/78, and the lowest in 1974/75 (41.6 million quintals).

Production of different crops was changing significantly by year: the highest was:

for teff in 1978/79 (10.6 million quintals),  
for barley in 1976/77 (7.7 million quintals),  
for wheat in 1974/75 (6.6 million quintals),  
for maize in 1975/76 (12.6 million quintals),  
for sorghum in 1975/76 (8.7 million quintals), and  
for millet in 1975/76 (3.8 million quintals).

The highest production of pulses was in 1976/77 (6.2 million quintals), and for other crops (neug, flax and vetch) was in 1975/76 (1.3 million quintals).

Table 3

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN ETHIOPIA IN 1974/75(1967E.C.)-  
1978/79(1971 E.C.)  
(Private Peasant Holdings-Main Season)

Crop	Estimate in year:				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
Thousand hectares					
CEREALS	4403.8	4346.9	4154.3	4382.9	4546.9
Teff	1188.7	1403.2	1310.7	1279.3	1365.2
Barley	759.9	543.3	709.5	796.0	833.9
Wheat	759.3	532.3	544.5	486.0	503.2
Maize	744.6	715.7	648.4	830.8	888.7
Sorghum	746.8	775.3	743.3	758.7	719.3
Millet	204.5	377.1	197.9	232.1	236.6
PULSES	763.2	632.3	662.5	619.5	640.3
Horse beans	329.4	262.5	269.9	281.6	295.7
Chick peas	150.3	179.1	151.4	137.2	140.5
Haricot beans	67.1	40.3	48.6	20.6	19.7
Field peas	101.0	102.3	133.1	121.0	126.0
Lentils	115.4	48.1	59.5	59.1	58.4
Others	182.3	354.3	221.1	204.1	209.3
Neug	98.5	234.3	121.3	113.2	113.9
Flax (Linseed)	54.4	88.5	49.6	36.4	37.9
Vetch	29.4	31.5	50.2	54.5	57.5
TOTAL	5349.3	5333.5	5037.9	5206.5	5396.5

Table 4

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN ETHIOPIA IN 1974/75(1967E.C.)  
-1978/79(1971 E.C.)  
(Private Peasant Holdings-Main Season)

Crop	Estimate in year:				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
	Thousand quintals				
CEREALS	36118.8	44585.8	40944.7	37417.4	38094.8
Teff	8263.9	9729.5	9812.1	10008.6	10600.7
Barley	5477.0	4702.7	7662.1	6157.4	6130.5
wheat	6631.1	5035.3	5661.9	4015.7	4183.1
Maize	7923.8	12617.6	8583.0	8157.3	8641.2
Sorghum	6264.6	8722.8	7510.5	7008.3	6659.7
Millet	1558.4	3777.9	1715.1	2070.1	1879.6
PULSES	4920.5	4522.7	6154.2	5065.9	4632.4
Horse beans	2790.5	2371.2	3396.0	2784.0	2619.1
Chick peas	914.8	942.9	1070.1	969.1	753.8
Haricot beans	318.6	438.7	304.4	137.0	129.4
Field peas	433.5	443.6	963.8	848.2	862.6
Lentils	453.1	326.3	419.9	327.6	267.5
OTHERS	554.9	1266.9	701.1	826.6	766.4
Neug	247.4	803.1	255.7	358.9	331.2
Flex (Linseed)	183.1	299.8	179.1	147.7	135.7
Vetch	124.4	164.0	266.3	320.0	299.5
TOTAL	41594.2	50375.4	47800.0	43309.9	43493.6

Assessments of yield for major crops are presented in table 5. Generally speaking, yield decreased during last two years, but there are some exceptions. In 1974/75-1978/79, the highest yield was for:

teff in 1977/79 and 1978/79 (7.8 qt/ha),  
barley in 1976/77 (10.8 qt/ha),  
wheat in 1976/77 (10.4 qt/ha),  
maize in 1975/76 (17.6 qt/ha),  
sorghum in 1975/76 (11.3 qt/ha), and  
millet in 1975/76 (10.0 qt/ha).

Reasons for yield decrease in the last five years are given in reports published previously (see: [2], [6] and [7]).

### 3.2. Production of Major Crops for Belg (Second) Season

Belg (second season) crops are planted in Ethiopia during the "belg" or small rainy season which normally occur during the period from February to May. It has been found that Arssi, Bale, Sidamo, Northern and Central Shoa and Wollo are the major belg producing areas.

It is estimated that total area under belg crops is about 4% of total area under major crops (about 180 thousand hectares).

Assessment of production of major crops for belg season is given in table 6 for period 1974/75-1978/79. Barley, wheat, and teff are the major crops in higher elevations, while sorghum and maize are the major crops in lower elevations.

Table 5

ESTIMATES OF YIELD OF MAJOR CROPS  
IN ETHIOPIA IN 1974/75(1967 E.C.)  
-1978/79(1971 E.C.)  
(Private Peasant Holdings-Main Season)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
quintals hectare					
CEREALS	8.2	10.3	9.9	8.5	8.4
Teff	7.0	6.9	7.5	7.8	7.8
Barley	7.2	8.7	10.8	7.7	7.4
wheat	8.7	9.5	10.4	8.3	8.3
Maize	10.6	17.6	13.2	9.8	9.7
Sorghum	8.4	11.3	10.1	9.2	9.3
millet	7.6	10.0	8.7	8.9	7.9
PULSES	6.5	7.2	9.3	8.2	7.2
Horse beans	8.5	9.0	12.6	9.9	8.9
Chick peas	6.1	5.3	7.1	7.1	5.4
Haricot beans	4.8	10.9	6.3	6.7	6.6
Field peas	4.3	4.3	7.2	7.0	6.9
Lentils	4.0	6.8	7.1	5.5	4.6
OTHERS	3.0	3.6	3.2	4.1	3.7
Neug	2.5	3.4	2.1	3.2	2.9
Flax (Linseed)	3.4	3.4	3.6	4.1	3.6
Vetch	4.2	5.2	5.3	5.9	5.2
TOTAL	7.8	9.5	9.5	8.3	8.1

Table 6

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN ETHIOPIA IN 1974/75(1967 E.C.) -  
1978/79(1971 E.C.)  
(Peasant Holdings-belg season)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
Thousand quintals					
CEREALS	1518.2	1600.1	1883.6	1458.9	1568.2
Teff	13.0	15.3	10.5	18.2	19.5
Barley	756.4	649.5	1261.0	729.2	805.1
wheat	307.4	233.4	314.5	168.8	173.5
Maize	436.9	695.7	294.4	536.6	564.5
sorghum	4.5	6.2	3.2	6.1	5.6
PULSES	45.2	43.4	57.1	54.0	47.0
Horse beans	21.2	18.0	0.0	31.7	29.9
Chick peas	9.7	9.9	0.0	16.7	11.9
Haricot beans	4.1	5.7	8.6	0.7	0.7
Field peas	8.2	3.4	48.5	2.8	2.7
Lentils	2.0	1.4	0.0	2.1	1.8
OTHERS	7.4	11.5	5.7	10.7	9.9
Flax (Linseed)	5.8	9.5	5.7	4.7	4.3
Vetch	1.6	2.0	-	6.0	5.6
TOTAL	1570.8	1655.0	1946.4	1523.6	1625.1

Barley followed by maize and wheat are the most important crops constituting about 80% of total belg production. Teff, field peas and haricot beans and others are planted on a much smaller scale.

The highest production of belg crop was in 1976/77 (1969 E.C.) (1.9 million quintals) followed by 1975/76 (1.7 million quintals), 1978/79 (1.6 million quintals), 1974/75 (1.6 million quintals) and 1977/78 (1.5 million quintals).

### 3.3. Area and Production of Major Crops for State Farms

As has been already mentioned in chapter I, area and production of major crops for state farms were accepted according to the State Farm Development Authority Publication (see [10] ).

State farms were established in 1975, according to the Proclamation No. 142 of 1970.E.C. . They include some previous commercial farms, and for this reason area and production are given for period 1975/76-1978/79. Assessment of area and production of major crops for commercial farms in 1974/75 are given in next section of this chapter.

Area and production of major crops for state farms in 1975/76-1978/79 are given in tables 7 and 8 respectively. As one can see from these tables, the state farms produced mainly maize, wheat, sorghum and teff.

Total area under major crops was:

20.1 th. hectares in 1975/76  
27.3 th. hectares in 1976/77,  
24.5 th. hectares in 1977/78, and  
32.9 th. hectares in 1978/79.

Table 7

ESTIMATES OF AREA OF MAJOR CROPS  
FOR STATE FARMS IN 1975/76 (1968 E.C.)-  
1978/79 (1971 E.C.)

Crop	Estimate in year:			
	1975/76 (1968 E.C.)	1976/77 (1969 E.C.)	1977/78 (1970 E.C.)	1978/79 (1971 E.C.)
Thousand hectares				
CEREALS	18.4	26.4	23.7	32.6
Teff	1.5	1.4	0.7	1.7
Barley	-	-	-	1.0
Wheat	1.3	1.1	4.2	5.4
Maize	15.3	23.1	17.1	19.8
Sorghum	0.3	0.8	1.5	4.4
Millet	-	-	0.2	0.3
PULSES	1.7	0.9	0.8	0.2
Chick peas	0.3	0.3	0.2	-
Haricot beans	1.4	0.6	0.6	0.2
OTHERS	-	-	-	0.1
Neug	-	-	-	0.1
TOTAL	20.1	27.3	24.5	32.9

Table 3

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
FOR STATE FARMS IN 1975/76(1968E.C.)-  
- 1978/79(1971E.C.)

Crop	Estimate in year:			
	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
Thousand quintals				
CEREALS	414.2	635.3	709.7	850.9
Teff	13.8	12.0	7.4	17.3
Barley	-	-	-	18.0
wheat	19.4	13.0	32.8	107.8
Maize	373.7	595.6	582.1	595.1
Sorghum	4.3	14.7	36.0	108.8
Millet	-	-	1.4	3.9
PULSES	12.2	11.2	11.1	3.3
Chick peas	2.3	5.8	1.2	-
Haricot beans	9.9	5.4	9.9	3.3
OTHERS	-	-	-	0.6
Neug	-	-	-	0.5
TOTAL	426.4	646.5	720.8	854.8

Total production of major crops was:

426.4 th. quintals in 1975/76,  
646.5 th. quintals in 1976/77,  
720.8 th. quintals in 1977/78, and  
854.8 th. quintals in 1978/79.

Production of maize constitutes nearly 70% of total production of major crops followed by wheat, sorghum, maize and haricot beans.

#### 3.4. Area and Production of Major Crops for Co-operative Farms

Number of co-operative farms in the strict sense of the definition (see [8, p. 44]) was very negligible in 1974/75-1978/79. By "co-operative farms" we mean here land abandoned by former landlords and cultivated by members of the Farmers' Associations. It has been assessed that total area under major crops cultivated by such "co-operative farms" was:

61.6 th. hectares in 1975/76,  
45.4 th. hectares in 1976/77,  
42.7 th. hectares in 1977/78, and  
46.0 th. hectares in 1978/79.

Over 50% of this area was under teff, followed by neug, wheat and sorghum.

Total production of major crops for "co-operative farms" was:

443.7 th. quintals in 1975/76  
277.0 th. quintals in 1976/77,  
311.8 th. quintals in 1977/78, and  
330.2 th. quintals in 1978/79.

Details are given in tables 9 and 10.

State farms and co-operative farms did not exist in 1974/75. For that period some major crops were produced by so called commercial farms. Unfortunately, there are no available statistical data regarding this production. It has been accepted that area under major crops for 'commercial farms' in 1974/75 were equal to the mean area of state farms and 'co-operative farms' in the period 1975/76-1978/79. Production was assessed as the product of area and yield for 1974/75.

The results for 1974/75 are as follows:

	<u>Area</u> (th.ha)	<u>Production</u> (th. qt)
1. Toff.....	28.9	203.3
2. Barley.....	2.1	15.1
3. Wheat.....	5.8	50.5
4. Maize.....	4.5	47.7
5. Sorghum.....	5.3	36.1
6. Millet.....	1.1	8.4
7. Horse beans.....	0.4	8.9
8. Chick peas.....	1.5	9.2
9. Haricot beans.....	1.0	4.8
10. Field peas.....	1.3	5.6
11. Lentils.....	0.1	0.4
12. Mung.....	8.2	18.9
<u>TOTAL</u> .....	<u>59.2</u>	<u>407.9</u>

3.5. Area, Production and Yield of Major Crops for the Whole Country in 1974/75-1978/79

In order to obtain area and production of major crops for the whole country, i.e. for all regions, all

Table 9

ESTIMATES OF AREA UNDER MAJOR CROPS FOR  
CO-OPERATIVES IN 1975/76(1968E.C.)-  
1978/79(1971 E.C.)

Crop	Estimate in year:			
	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
	Thousand hectares			
CEREALS	46.0	34.3	32.7	36.0
Teff	35.7	25.0	24.0	25.7
Barley	2.1	1.5	1.8	1.9
Wheat	3.2	2.8	2.6	2.7
Maize	1.7	1.1	1.5	1.6
Sorghum	2.0	2.8	2.8	2.7
Millet	1.3	1.1	-	1.4
PULSES	5.5	2.9	2.7	2.8
Horse beans	1.1	0.2	0.2	0.2
Chick peas	1.9	1.2	1.1	1.1
Haricot beans	0.9	0.1	0.1	0.1
Field peas	1.4	1.3	1.2	1.3
Lentils	0.2	0.1	0.1	0.1
OTHERS	10.1	8.2	7.3	7.2
Neug	10.1	8.2	7.3	7.2
TOTAL	61.6	45.4	42.7	46.0

Table 10

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
FOR CO-OPERATIVES IN 1974/75(1967 E.C.)  
- 1978/79(1971 E.C.)

Crop	Estimate in year:			
	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	Thousand quintals			
CEREALS	380.8	237.6	267.6	290.7
Teff	278.5	110.2	189.6	200.5
Barley	17.8	22.5	12.8	14.1
Wheat	36.3	62.7	21.8	23.5
Maize	15.5	5.1	14.3	15.5
Sorghum	22.1	28.4	28.6	24.8
Millet	10.1	8.7	-	12.3
PULSES	41.2	22.5	20.1	17.9
Horse beans	9.1	1.7	2.0	1.8
Chick peas	17.2	11.3	8.4	6.2
Haricot beans	4.9	0.3	0.8	0.7
Field peas	8.9	8.6	8.4	8.8
Lentils	1.1	0.6	0.5	0.4
OTHERS	21.7	16.9	24.1	21.6
Neug	21.7	16.9	24.1	21.6
TOTAL	443.7	277.0	311.8	330.2

types of holdings and both season, we must add:

- a) area and production of private peasant holdings in main season (tables 3 and 4 respectively),
- b) production of private peasant holdings in belg season (table 6),
- c) area and production for state farms (tables 7 and 8 respectively),
- d) area and production for 'co-operative farms' (tables 9 and 10 respectively),
- e) area and production of 'commercial farms' in 1974/75 (as given in sec. 3.4).

It means that total area under major crops for the country as a whole was obtained by addition appropriate columns and rows in tables 3, 7, 9 and area for 'commercial farms' in 1974/75, while production of major crops - by adding tables 4, 6, 8, 10 and production for 'commercial farms' as given in 3.4.

Assessment of area under major crops for the whole country is given in table 11, while percentages of area are presented in table 12.

As may be seen from table 11, total area under major crops was:

- 5.4 million hectares in 1974/75,
- 5.4 million hectares in 1975/76,
- 5.1 million hectares in 1976/77,
- 5.3 million hectares in 1977/78, and
- 5.5 million hectares in 1978/79.

Table 11 ✓

ESTIMATES OF AREA OF MAJOR CROPS FOR  
THE WHOLE ETHIOPIA IN 1974/75(1967E.C.)  
- 1978/79(1971 E.C.)

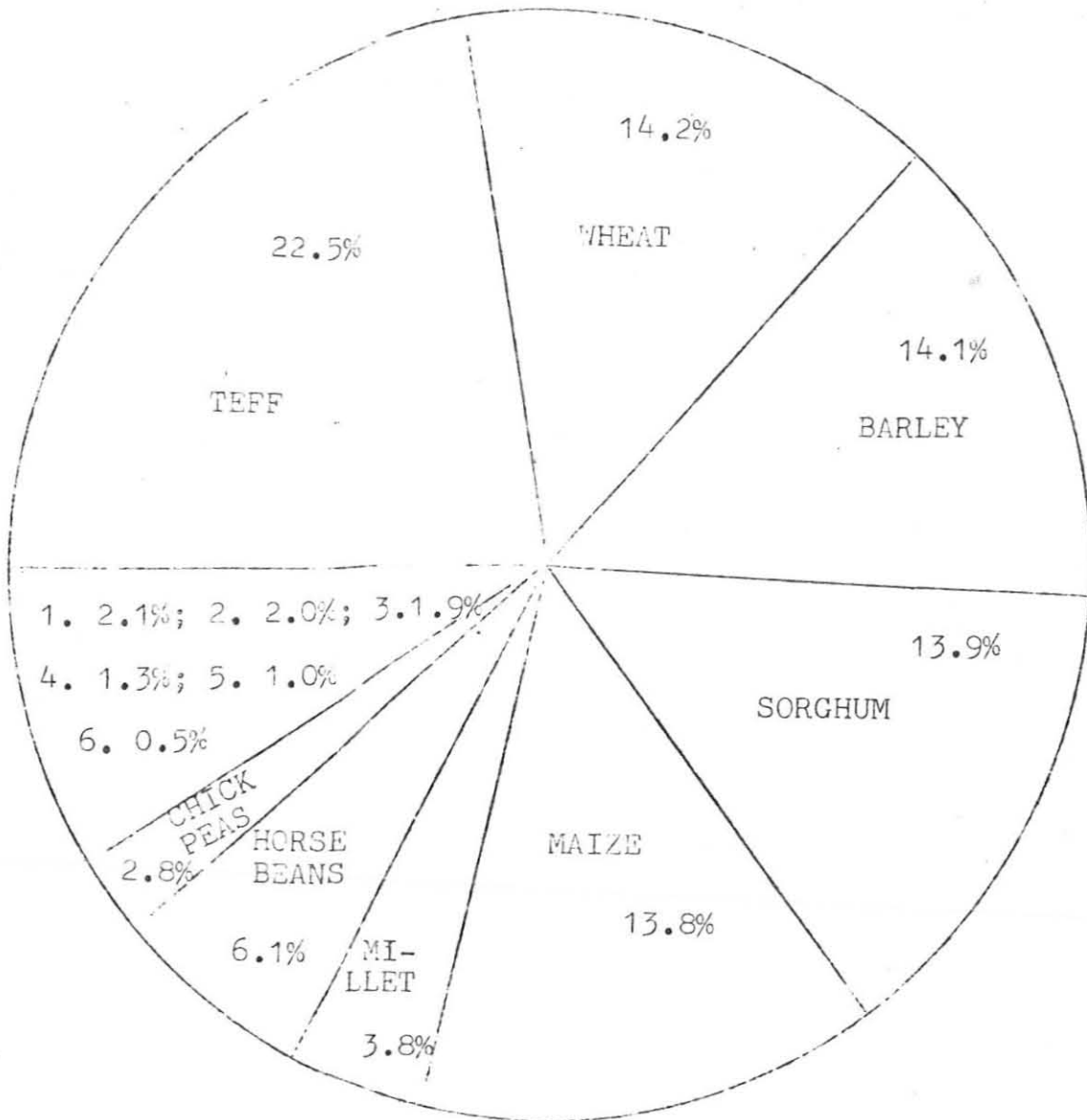
Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	Thousand hectares				
CEREALS	4450.5	4411.3	4215.0	4439.3	4615.5
Teff	1217.6	1440.4	1337.1	1304.0	1392.6
Barley	762.0	545.4	711.0	797.8	636.8
Wheat	765.1	536.8	548.4	492.8	511.3
Maize	749.1	732.7	672.6	849.4	910.1
Sorghum	751.1	777.6	746.9	763.0	726.4
Millet	205.6	378.4	199.0	232.3	238.3
PULSES	767.5	639.5	666.3	623.0	643.3
Horse beans	329.6	263.6	270.1	281.8	295.9
Chick peas	151.8	101.3	152.9	138.5	141.6
Haricot beans	68.1	42.6	49.3	21.3	20.0
Field peas	102.3	103.7	134.4	122.2	127.3
Lentils	115.5	48.3	59.6	59.2	58.5
OTHERS	130.5	364.4	229.3	211.4	216.6
Newg	106.7	244.4	129.5	120.5	121.2
Flax (Linseed)	54.4	68.5	49.6	36.4	37.9
Vetch	29.4	31.5	50.2	54.5	57.5
TOTAL	5408.5	5415.2	5110.6	5273.7	5475.4

Table 12

PERCENTAGES OF AREA OF MAJOR CROPS IN ETHIOPIA  
BY CROP IN 1974/75(1967E.C.) -1978/79(1971E.C)

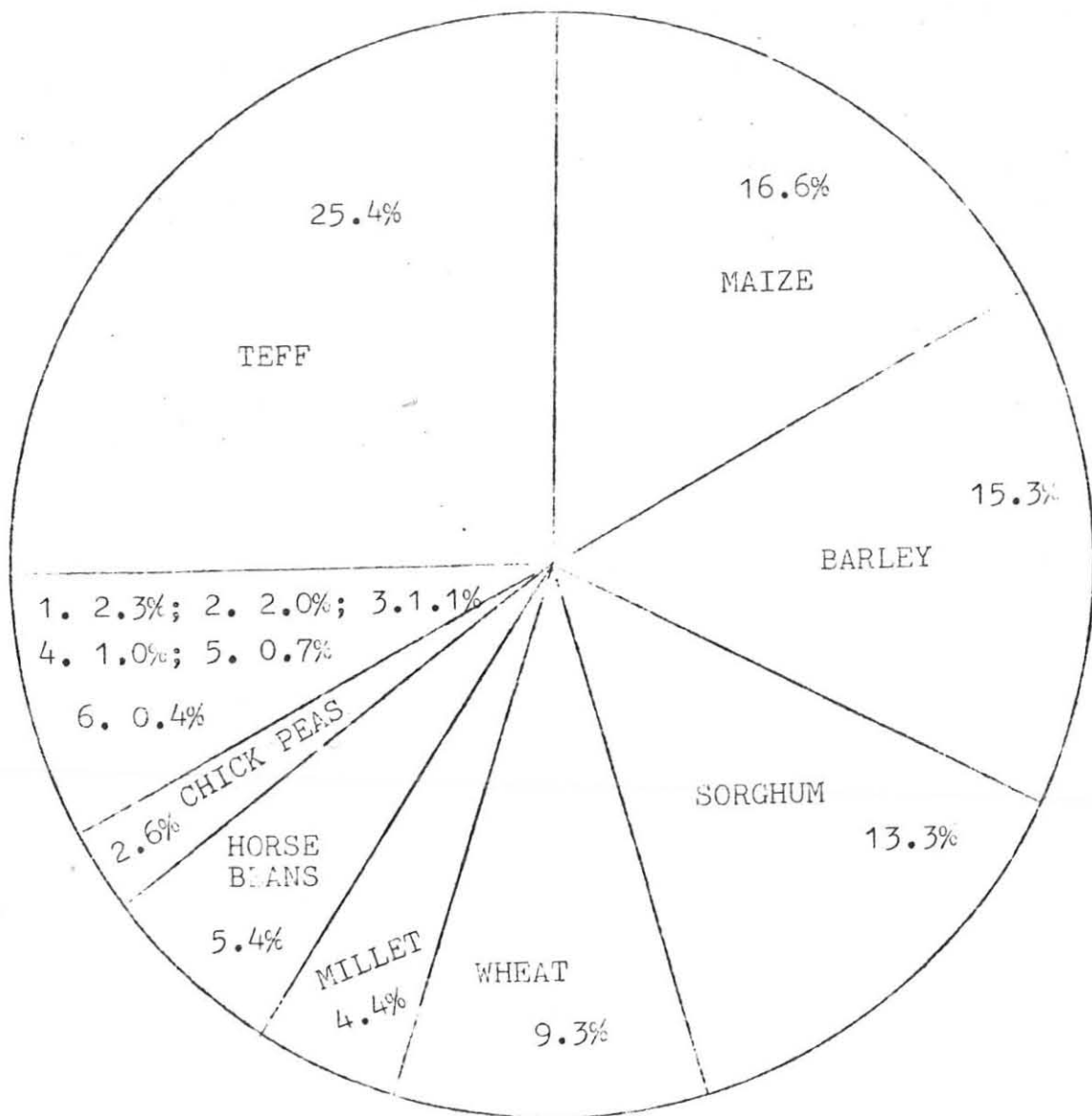
Crop	Area in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	Percentages				
CEREALS	82.3	81.5	82.5	84.2	84.3
Teff	22.5	26.6	26.2	24.8	25.4
Barley	14.1	10.1	13.9	15.1	15.3
Wheat	14.2	9.9	10.7	9.3	9.3
Maize	13.8	13.5	13.2	16.1	16.6
Sorghum	13.9	14.4	14.6	14.5	13.3
Millet	3.8	7.0	3.9	4.4	4.4
PULSES	14.2	11.8	13.0	11.8	11.7
Horse beans	6.1	4.9	5.3	5.3	5.4
Chick peas	2.8	3.3	3.0	2.6	2.6
Haricot beans	1.3	0.8	0.9	0.4	0.4
Field peas	1.9	1.9	2.6	2.3	2.3
Lentils	2.1	0.9	1.2	1.2	1.0
OTHERS	3.5	6.7	4.5	4.0	4.0
Neug	2.0	4.5	2.5	2.3	2.0
Flax (Linseed)	1.0	1.6	1.0	0.7	0.7
Vetch	0.5	0.6	1.0	1.0	1.1
TOTAL	100.0	100.0	100.0	100.0	100.0

Fig. 1. PERCENTAGES OF AREA UNDER MAJOR CROPS  
IN 1974/75 (1967 E.C.)



- |                |                   |
|----------------|-------------------|
| 1. Lentils.    | 4. Haricot beans. |
| 2. Neug.       | 5. Flex.          |
| 3. Field peas. | 6. Vetch.         |

Fig. 2. PERCENTAGES OF AREA UNDER MAJOR CROPS  
IN 1978/79 (1971 E.C.)



- |                |                   |
|----------------|-------------------|
| 1. Field peas. | 4. Lentils.       |
| 2. Neug.       | 5. Flax.          |
| 3. Vetch.      | 6. Haricot beans. |

There were significant changes of area under different crops in 1974/75 - 1978/79. The biggest changes took place in 1975/76 (1968 E.C.), after the Land Reform Proclamation, as it was explained in sec. 3.1. Area under teff, millet and neug increased rapidly in 1975/76 compared to the previous year, and area under following crops decreased significantly: barley, wheat, and lentils.

As one can see from table 12, percentages of area under different crops show some changes during five years. Percentage of area under teff is the biggest in each year (from 22.5% to 26.6%). Second crop is: wheat in 1974/75 (14.2%), sorghum in 1975/76 and 1976/77 (14.4% and 14.6% respectively), maize in 1977/78 and 1978/79 (16.1% and 16.6% respectively). The third crops was: barley in 1974/75, 1976/77, 1977/78 and 1978/79 (14.1%, 13.9%, 15.1% and 15.3% respectively).

Total production of major crops was:

43.6 million quintals in 1974/75,  
52.9 million quintals in 1975/76,  
50.7 million quintals in 1976/77,  
45.9 million quintals in 1977/78, and  
46.3 million quintals in 1978/79.

It means that the highest production of major crops was in 1975/76, followed by 1976/77, 1978/79, 1977/78 and 1974/75. Production of different crops changed significantly in consecutive years. Teff production was the highest in 1978/79 (10.8 million quintals),

followed by 1977/78(10.2 million quintals), 1975/76 (10.0 million quintals), 1976/77(9.9 million quintals), and 1974/75(8.5 million quintals).

Production of barley was the highest in 1976/77(8.9 million quintals), followed by 1978/79(7.0 million quintals), 1977/78(6.9 million quintals), 1974/75 (6.2 million quintals), and 1975/76(5.4 million quintals).

Production of wheat was the highest in 1974/75(7.0 million quintals), followed by 1976/77(6.1 million quintals), 1975/76(5.3 million quintals), 1978/79(4.5 million quintals), and 1977/78(4.3 million quintals).

Production of maize was the highest in 1975/76(13.7 million quintals), followed by 1978/79(9.8 million quintals), 1976/77(9.5 million quintals), 1977/78(9.3 million quintals), and 1974/75(8.4 million quintals). Details are given in table 13.

Yield was calculated as a ratio of production and area under crop in question. In 1974/75 - 1978/79 yield of major crops depended mainly on weather conditions in particular year, since fertilizers had negligible impact (on the average, only 4.0 kgs per hectare were used) (see 2 and 8).

Yield of teff showed small but stable increase from 7.0 kg/ha in 1974/75 and 1975/76 to 7.8 kg/ha in 1977/78 and 1978/79.

Yield of barley was the highest in 1976/77(12.6 kg/ha), and the smallest in 1974/75(8.2 kgs/ha).

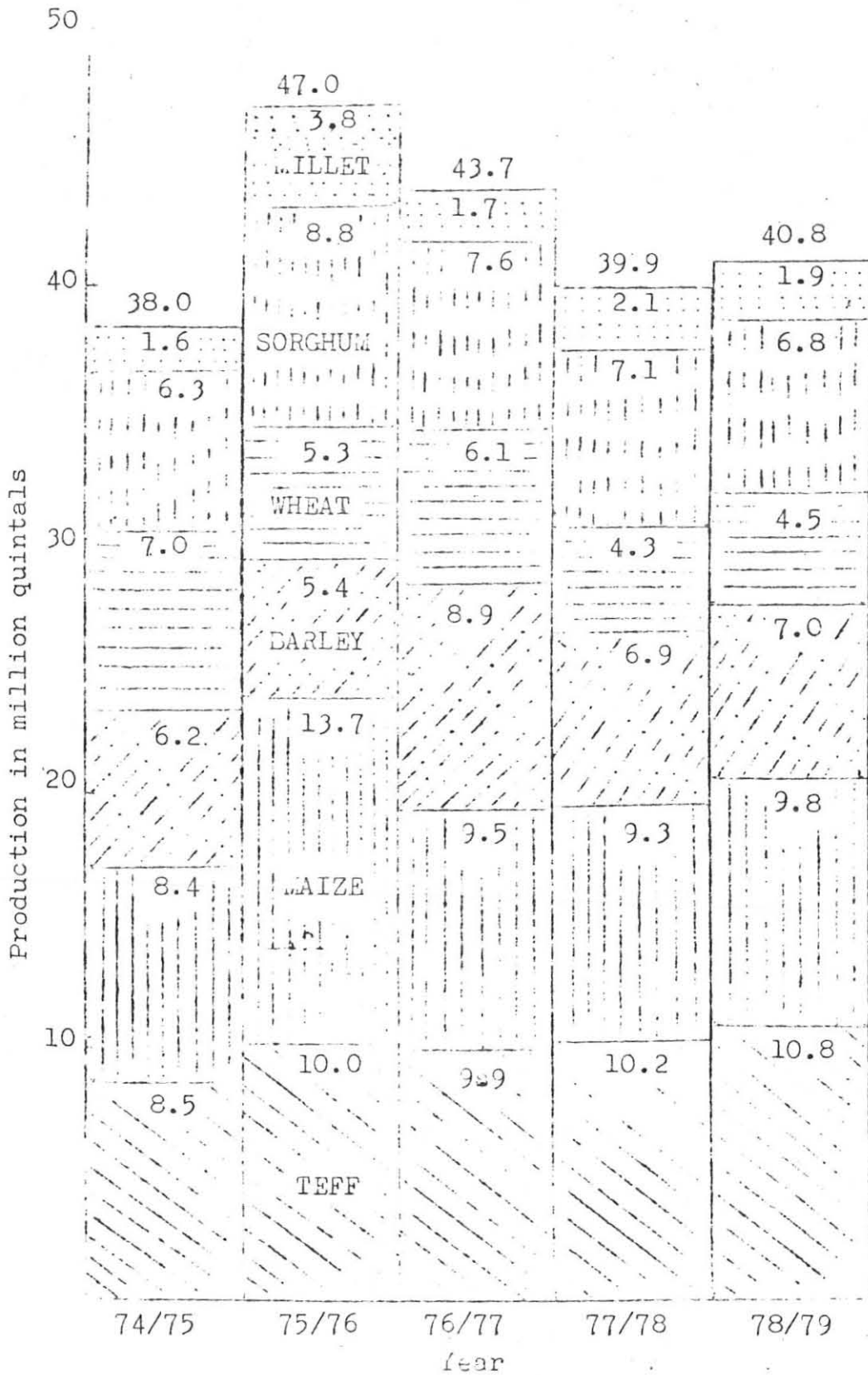
The highest yield of wheat was in 1976/77(11.0kg/ha), and the smallest in 1978/79(8.8 kg/ha).

Table 13 ✓

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
FOR THE WHOLE ETHIOPIA IN 1974/75(1967 E.C.)  
- 1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	Thousand quintals				
CEREALS	37997.1	46980.9	43701.2	39853.6	40804.6
Teff	8479.2	10037.1	9944.8	10223.8	10338.0
Barley	6248.5	5370.0	8945.6	6899.4	6967.7
wheat	6969.0	5324.9	6052.1	4289.1	4487.9
Maize	3408.4	13705.5	9478.1	9290.8	9816.3
Sorghum	6305.2	3755.4	7556.8	7079.0	6798.9
Millet	1566.8	3788.0	1723.8	2071.5	1895.8
PULSES	4994.6	4619.5	6245.0	5151.1	4700.6
Horse beans	2820.6	2398.3	3397.7	2817.7	2650.8
Chick peas	933.7	972.3	1087.2	995.4	771.9
Haricot beans	327.5	459.2	318.7	148.4	134.1
Field peas	447.3	460.9	1020.9	859.4	874.1
Lentils	465.5	328.8	420.5	330.2	269.7
OTHERS	581.2	1300.1	723.7	861.4	798.5
Neug	266.3	824.8	272.6	383.0	353.4
Flax (Linseed)	188.9	309.3	184.8	152.4	140.0
Vetch	126.0	166.0	266.3	326.0	305.1
TOTAL	43572.9	52900.5	50669.9	45866.1	46303.7

Fig. 3. PRODUCTION OF CEREALS IN 1974/75 - 1978/79



Yield of maize was the highest in 1975/76(18.7) kg/ha), and the smallest in 1978/79(10.8 kg/ha).

Out of 14 major crops, the highest yield was observed:

5 times in 1975/76,  
5 times in 1976/77, and  
4 times in 1977/78,

and the lowest yield was reported:

9 times in 1974/75,  
2 times in 1975/76,  
1 time in 1976/77,  
1 time in 1977/78, and  
1 time in 1978/79.

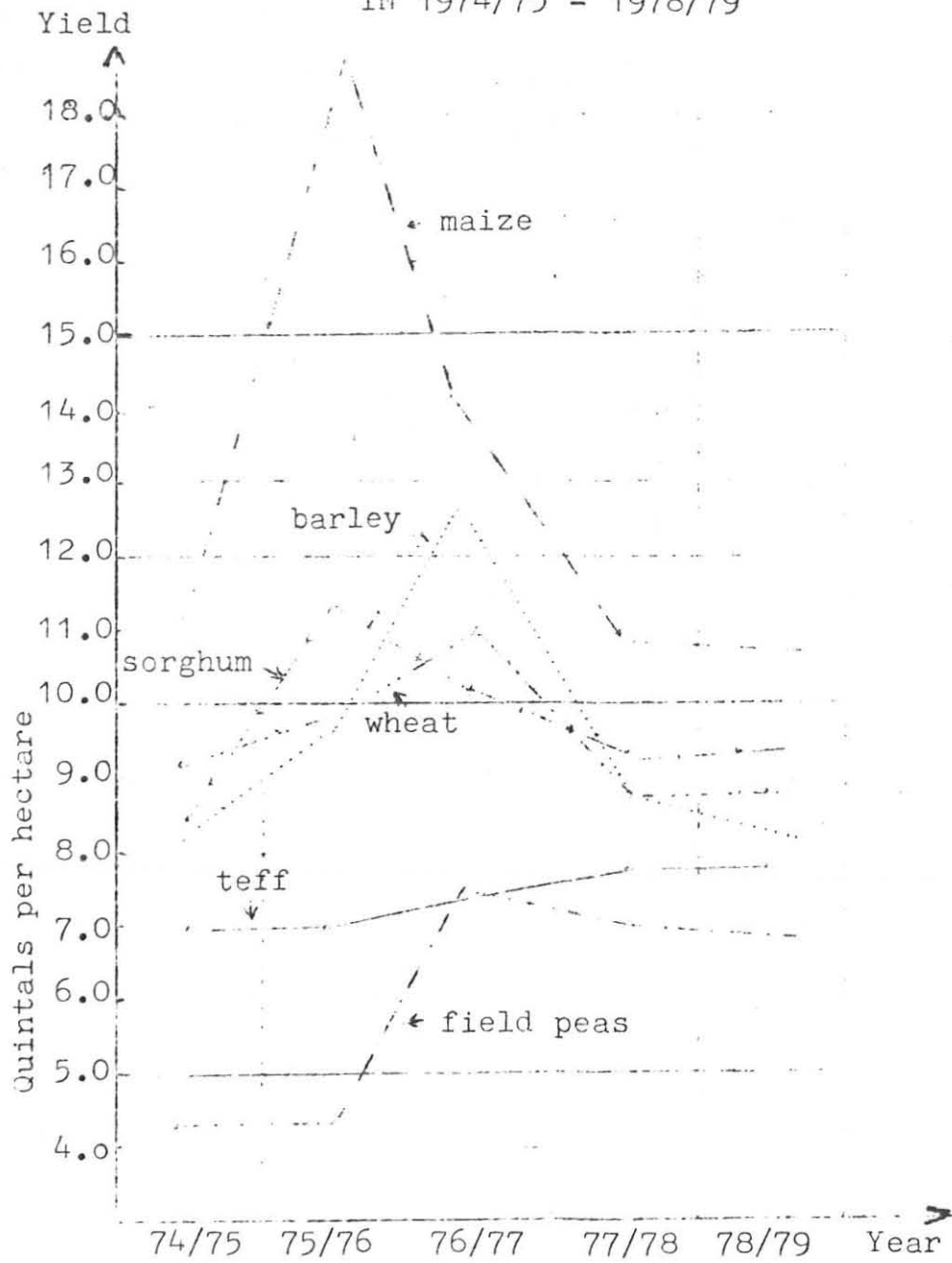
For details see table 14.

Table 14 ✓

ESTIMATES OF YIELD OF MAJOR CROPS FOR THE WHOLE ETHIOPIA IN 1974/75(1967E.C.)-1978/79(1971 E.C.)

	Estimate in year:						
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)		
	quintals hectare						
1977 11.91	CEREALS	8.5	10.6	10.4	9.0	8.8	12.25
9.63	Teff	7.0	7.0	7.4	7.8	7.8	9.59
12.94	Barley	8.2	9.8	12.6	8.7	8.3	13.08
11.04	Wheat	9.1	9.9	11.0	8.7	8.8	11.21
12.59	Maize	11.2	18.7	14.1	10.9	10.8	19.46
14.11	Sorghum	8.4	11.3	10.1	9.3	9.4	16.19
8.77	Millet	7.6	10.0	8.7	8.9	8.0	7.10
11.42	PULSES	6.5	7.2	9.4	8.3	7.3	12.18
15.01	Horse beans	8.6	9.1	12.6	10.0	9.0	15.33
7.93	Chick peas	6.2	5.4	7.1	7.2	5.5	8.57
9.70	Haricot beans	4.8	10.8	6.5	7.0	6.7	13.53
8.74	Field peas	4.4	4.4	7.6	7.0	6.9	11.58
11.23	Lentils	4.0	6.8	7.1	5.6	4.6	7.33
4.57	OTHERS	3.1	3.6	3.2	4.1	3.7	6.61
3.04	Neug	2.5	3.4	2.1	3.2	2.9	4.60
4.51	Flax (Linseed)	3.5	3.5	3.7	4.2	3.7	4.29
8.76	Vetch	4.3	5.3	5.3	6.0	5.3	7.71
11.53	TOTAL	8.1	9.8	9.9	8.7	8.5	12.51

Fig. 4. YIELDS OF SELECTED CROPS  
IN 1974/75 - 1978/79



REFERENCES

1. Agricultural Sample Survey 1974/75 (1967 E.C.) . Vol.I and vol. II. Addis Ababa, July-September 1975.
2. Area Production, Yield, Use of Fertilizers and Marketed Production of Major Crops. Results of Agricultural Sample Survey 1977/78 (1970 E.C.) . Vol. I. Addis Abeba, August 1978.
3. Crop Production Forecast in Ethiopia for 1978/79 (1971 E.C.). Addis Abeba, January 1979.
4. Crop Production in Eritrea during 1960-1976 Agricultural Office for Eritrea Region. Asmara, 1977.
5. Crop Production Survey 1975/76 (1968 E.C.). Addis Ababa, October 1976.
6. Crop Production Survey 1978/79 (1971 E.C.). Addis Ababa, June 1979.
7. Land Area and Land Utilization. Results of the National Sample Survey, Second Round. Vol. V. Addis Ababa February 1975.
8. Land Utilization and Crop Production. Report on the Small-Scale Agricultural Sample Census 1977/78 (1969E.C.). Addis Ababa, June 1977.
9. Preliminary Forecast of Area, Production and Yield of Major Crops for the Whole Country and by Region in 1979/80 (1972 E.C.) and 1980/81 (1973 E.C.). (With Methodological Introduction) . Addis Ababa, July 1979.
10. State Farm Development Authority, No. 1. Addis Ababa, 1978.

A N N E X

AREA, PRODUCTION AND YIELD BY REGION AND CROP  
IN 1974/75-1978/79

1. Arosi.
2. Bale.
3. Eritrea.
4. Gamo Goffa.
5. Gojam.
6. Gondar.
7. Hararge.
8. Illubabor.
9. Keffa.
10. Shoa.
11. Sidamo.
12. Tigrai.
13. Wollega.
14. Wollo.

Table 1.1

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN ARSSI IN 1974/75(1967 E.C)-1978/79(1971 E.C)

Crop	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
Thousand hectares					
CEREALS	445.8	343.5	365.1	399.4	425.3
Teff	24.5	27.7	24.1	25.2	29.0
Barley	154.9	107.1	136.6	154.7	164.2
Wheat	201.3	144.1	142.9	153.8	163.3
Maize	45.0	43.8	43.2	41.9	43.9
Sorghum	20.1	20.8	18.3	23.8	24.9
Millet	-	-	-	-	
PULSES	68.3	52.1	61.7	60.8	65.7
Horse beans	32.1	26.2	24.6	37.3	41.0
Chick peas	1.2	1.1	0.5	1.0	1.1
Haricot beans	10.6	6.6	10.9	1.2	1.3
Field peas	12.5	12.8	17.4	15.8	16.9
Lentils	11.9	5.4	8.3	5.5	5.4
OTHERS	9.4	14.2	6.0	6.2	5.9
Neug	0.4	0.9	0.5	0.2	0.3
Flax Linseed	8.2	11.6	4.0	3.8	3.4
Vetch	0.2	0.3	0.8	1.0	1.0
Fenu greek	0.6	1.4	0.7	1.2	1.2
TOTAL	523.5	409.8	432.8	466.4	496.9

Table 1.2

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN BALE IN 1974/75(1967 E.C)-1978/79(1971 E.C)

	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
	Thousand hectares				
CEREALS	133.9	96.3	114.4	96.1	123.3
Teff	8.2	8.6	7.4	5.5	8.2
Barley	69.1	49.5	69.4	61.7	78.0
Wheat	50.1	33.9	35.2	25.6	34.0
Maize	6.2	3.6	1.0	0.9	1.2
Sorghum	0.2	0.4	0.5	1.4	1.1
Millet	0.1	0.3	0.6	1.0	0.8
PULSES	13.7	12.4	16.8	13.4	16.5
Horse beans	2.9	2.4	2.7	2.1	2.5
Chick peas	0.1	0.1	0.1	0.1	0.1
Haricot beans	-	-	-	-	-
Field peas	9.1	9.2	12.9	10.4	13.3
Lentils	1.6	0.7	1.1	0.8	0.6
OTHERS	5.9	9.3	4.5	2.2	2.8
Neug	-	-	-	-	-
Flax					
Linseed	5.9	9.3	4.5	2.2	2.8
Vetch	-	-	-	-	-
TOTAL	153.5	118.0	135.7	111.7	142.6

Table 1.3

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN ERITREA IN 1974/75(1967 E.C)-1978/79(1971 E.C)

Crop	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
	Thousand hectares				
CEREALS	212.4	210.6	201.0	217.0	205.8
Teff	22.4	24.9	27.1	28.1	28.7
Barley	28.5	22.9	27.2	24.8	25.8
Wheat	16.5	14.9	17.3	16.9	16.0
Maize	15.7	17.9	18.7	17.6	18.1
Sorghum	91.3	89.9	81.1	94.5	82.6
Miliet	38.0	40.1	29.6	35.1	34.6
PULSES	8.4	15.0	17.6	16.8	17.5
Horse beans	2.3	2.2	2.5	2.8	3.1
Chick peas	2.2	6.1	7.5	6.3	6.8
Haricot beans	-	-	-	-	=
Field peas	1.6	4.7	5.2	4.9	5.0
Lentils	2.3	2.0	2.4	2.8	2.6
OTHERS	10.7	12.0	16.4	16.7	17.8
Neug	-	-	-	-	-
Flax					
Linseed	6.1	7.0	9.8	9.4	9.7
Vetch	4.6	5.0	6.6	7.3	8.1
TOTAL	231.5	237.6	235.0	250.5	241.1

Table 1.1

AREA UNDER MAJOR CROPS  
IN GAMBIA FIELD DISTRICT IN 1974/75 (1967 E.C.)-1978/79 (1971 E.C)

Crop	Designate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
Thousand hectares					
CEREALS	76.2	84.7	57.2	81.5	86.2
Teff	15.5	14.6	11.8	13.0	14.6
Barley	22.9	16.3	21.1	30.5	32.4
Wheat	5.5	2.0	1.4	1.5	1.5
Maize	27.3	24.8	20.5	27.4	29.3
Sorghum	7.0	5.7	1.4	6.7	6.5
Millet	0.8	0.7	1.5	2.4	2.4
PULSES	5.0	7.4	7.3	7.3	7.4
Horse beans	1.7	1.2	1.2	1.5	1.5
Chick peas	0.7	0.9	1.3	2.3	2.5
Haricot beans	1.2	0.5	1.2	0.9	0.9
Field peas	2.1	3.2	3.5	2.5	2.4
Lentils	1.2	3.0	0.1	0.1	0.1
OTHERS	-	-	-	-	-
Neug	-	-	-	-	-
Flax	-	-	-	-	-
Linseed	-	-	-	-	-
Vetch	-	-	-	-	-
TOTAL	81.2	103.1	88.0	88.8	94.1

Table 1.5

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN GOJJAM REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
Thousand hectares					
CEREALS	435.5	502.1	473.7	474.3	456.2
Teff	213.7	261.5	249.3	254.2	243.3
Barley	83.4	63.8	93.9	89.0	86.2
Wheat	35.8	24.5	21.6	28.3	27.8
Maize	35.2	35.9	33.8	47.1	48.0
Sorghum	22.4	23.5	27.9	92.2	9.0
Millet	45.0	92.9	47.2	46.5	41.9
PULSES	57.1	52.0	58.7	52.9	51.7
Horse beans	37.1	31.0	35.5	29.8	29.2
Chick peas	7.4	9.6	9.6	5.8	6.0
Haricot beans	-	-	-	-	-
Field peas	10.4	10.5	12.6	16.3	15.5
Lentils	2.2	0.9	1.0	1.0	1.0
OTHERS	49.7	106.9	54.3	56.0	54.0
Neug	32.0	77.6	39.8	40.3	38.4
Flax					
Linseed	15.7	27.6	13.3	10.5	10.1
Vetch	2.0	1.7	1.2	5.2	5.5
TOTAL	542.3	661.0	586.7	583.2	567.2

Table 1.5

STATISTICS OF AREA UNDER MAJOR CROPS

IN ETHIOPIA (ESTIMATE IN 1974/75 (1967 E.C.)-1978/79 (1971 E.C.))

Crop	Estimate in year:				
	1974/75 (1967 E.C.)	1975/76 (1968 E.C.)	1976/77 (1969 E.C.)	1977/78 (1970 E.C.)	1978/79 (1971 E.C.)
	Thousand hectares				
CEREALS	466.2	511.9	460.8	479.3	490.9
Wheat	201.5	234.1	216.6	201.3	205.9
Berberis	93.9	68.0	85.2	119.7	120.7
Millet	46.2	31.8	32.9	26.0	26.3
Maize	14.3	13.9	9.4	26.3	27.6
Sorghum	62.3	63.6	66.9	54.0	57.1
Maize	47.3	98.5	49.8	51.8	53.1
Pulses	184.2	131.5	125.9	133.7	137.0
Horseradish	50.3	40.1	36.8	54.6	57.3
Chickpea	53.3	64.9	51.1	53.4	52.8
Garbanzo bean	1.9	0.7	0.6	0.5	0.5
Field pea	17.7	17.2	27.2	15.3	16.4
Lentils	13.3	7.9	10.2	9.9	10.1
OTHERS	45.8	97.3	66.5	60.3	60.3
Flax	33.1	30.3	42.6	39.9	39.9
Linsaid	2.7	4.7	2.0	2.1	2.1
Vetiver	10.0	11.8	21.9	18.3	18.3
TOTAL	656.2	740.7	633.2	673.3	688.2

የአስተሳሰብ ጽ/ቤት  
 ቤተ ጽሑፍ ጽ/ቤት  
 C. S. O. Library

Table 1.7

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN HARARGE REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

Crop	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
Thousand hectares					
CEREALS	253.9	250.8	237.2	227.6	212.5
Teff	6.2	5.3	3.1	2.7	2.6
Barley	3.0	1.7	1.7	1.7	1.6
Wheat	10.6	7.6	8.0	6.9	5.8
Maize	46.7	43.3	39.9	41.1	39.6
Sorghum	186.4	191.1	183.3	174.5	162.1
Millet	1.0	1.8	1.2	0.7	0.8
PULSES	7.9	5.0	4.5	4.1	3.3
Horse beans	3.9	3.0	3.0	2.9	2.4
Chick peas	0.2	0.3	0.3	0.2	0.1
Haricot beans	2.5	1.0	0.5	0.3	0.3
Field peas	0.6	0.4	0.3	0.3	0.2
Lentils	0.7	0.3	0.4	0.4	0.3
OTHERS	-	-	-	-	-
Neug	-	-	-	-	-
Flax	-	-	-	-	-
Linseed	-	-	-	-	-
Vetch	-	-	-	-	-
TOTAL	261.8	255.8	241.7	231.7	215.8

Table 1.8

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN ILIUD AOR REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

Crop	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
	Thousand hectares				
CEREALS	120.9	136.0	123.9	127.3	139.9
Teff	44.1	53.8	53.9	45.4	47.4
Barley	4.3	3.0	4.4	3.3	3.5
Wheat	5.0	3.8	4.8	2.1	1.5
Maize	19.6	54.2	47.5	55.2	63.5
Sorghum	14.0	13.4	10.1	15.7	17.5
Millet	3.9	7.8	3.2	5.6	6.2
PULSES	8.3	7.8	9.7	8.2	9.0
Horse beans	2.6	1.8	1.3	1.8	1.9
Chick peas	0.6	0.9	1.2	1.8	2.0
Haricot beans	0.1	0.2	0.2	0.3	0.4
Field peas	5.0	4.9	7.0	4.3	4.8
Lentils	-	-	-	-	-
OTHERS	0.6	1.4	1.4	1.4	1.3
Neug	0.4	0.9	1.0	1.3	1.3
Flax Lenseed	0.2	0.5	0.4	0.1	-
Vetch	-	-	-	-	-
TOTAL	129.9	145.2	135.0	136.9	150.2

Table 1.9

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN KEFFA REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

Crop	estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
Thousand hectares					
CEREALS	250.2	263.9	247.0	312.8	357.9
Teff	80.4	97.5	87.8	104.8	116.9
Barley	18.1	13.6	19.0	21.0	23.2
Wheat	13.1	9.5	10.9	7.0	7.6
Maize	109.2	108.8	98.5	144.9	171.3
Sorghum	26.4	28.9	29.8	28.0	31.4
Millet	3.0	5.6	1.0	7.1	7.5
PULSES	22.2	20.7	28.2	16.4	17.0
Horse beans	15.2	13.2	17.6	7.5	7.8
Chick peas	0.2	0.3	0.4	0.3	
Haricot beans	-	-	-	-	
Field peas	6.8	7.2	10.2	8.9	2.2
Lentils	-	-	-	-	
OTHERS	1.1	2.6	1.6	1.2	1.2
Newg	1.0	2.5	1.5	1.2	1.2
Flax Linseed	0.1	0.1	0.1	0.1	
Vetch	-	-	-	-	
TOTAL	273.5	287.2	276.8	330.8	376.1

Table 1.1)

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN SPOA REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

Crop	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
Thousand hectares					
CEREALS	1055.0	964.5	947.9	999.6	1041.3
Teff	297.7	344.7	314.6	306.5	345.7
Barley	170.2	123.7	151.8	191.5	199.9
Wheat	260.3	182.5	180.8	160.1	160.3
Maize	185.5	183.4	179.5	188.3	195.6
Sorghum	123.0	130.2	117.7	149.8	137.2
Millet	0.0	0.0	3.5	3.4	3.2
PULSES	313.0	238.9	241.4	216.5	222.3
Horse beans	135.1	100.8	101.2	100.3	106.1
Chick peas	53.2	66.4	54.5	44.7	45.7
Haricot beans	37.8	22.2	26.4	12.3	11.3
Field peas	25.7	24.0	28.9	29.1	29.5
Lentils	63.2	25.5	30.4	30.1	29.7
OTHERS	25.2	41.8	25.6	21.0	<del>36.7</del> 22.5
Neug	3.7	17.7	8.9	3.5	3.6
Flax					
Linseed	0.9	18.1	10.1	5.3	5.9
Vetch	5.5	6.0	6.6	12.2	13.0
TOTAL	1390.2	1245.2	1214.9	1237.1	1286.1

Table 1.11

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN SIDAMO REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

Crop	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
	Thousand hectares				
CEREALS	129.8	119.7	130.0	146.2	165.2
Teff	15.3	19.5	22.7	11.4	13.3
Barley	37.3	28.3	38.8	46.8	54.5
Wheat	15.0	12.6	20.9	0.5	0.5
Maize	53.9	49.6	34.1	85.1	94.5
Sorghum	8.3	9.7	13.5	2.4	2.4
Millet	-	-	-	-	-
PULSES	15.7	12.4	14.4	10.2	10.6
Horse beans	2.9	2.5	2.5	3.2	3.4
Chick peas	3.1	4.4	6.1	3.2	3.5
Haricot beans	8.9	4.8	5.2	2.4	2.3
Field peas	0.7	0.6	0.5	1.3	1.4
Lentils	0.1	0.1	0.1	0.1	0.1
OTHERS	-	-	-	-	-
Neug	-	-	-	-	-
Flax	-	-	-	-	-
Linseed	-	-	-	-	-
Vetch	-	-	-	-	-
TOTAL	145.5	132.1	144.4	156.4	175.8

Table 1.12

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN TIGRAI REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

Crop	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
Thousand hectares					
CEREALS	226.5	245.6	213.7	219.7	220.8
Teff	59.4	70.4	65.7	64.4	66.8
Barley	31.3	22.3	29.2	33.0	25.7
Wheat	54.5	37.9	38.6	34.3	35.8
Maize	7.3	7.0	6.3	8.1	5.8
Sorghum	43.7	45.6	43.6	44.4	44.3
Millet	30.3	62.4	30.3	35.5	42.4
PULSES	35.7	33.0	31.2	28.3	29.9
Horse beans	11.2	8.9	9.1	9.5	9.2
Chick peas	16.7	19.5	16.1	13.7	15.5
Haricot beans	0.9	0.5	0.6	0.2	0.3
Field peas	2.3	2.3	3.1	2.7	2.7
Lentils	4.6	1.8	2.3	2.2	2.2
OTHERS	9.8	16.5	11.8	11.6	15.5
Neug	3.1	7.4	3.8	3.5	5.4
Flax					
Linseed	3.4	5.6	2.7	1.8	2.5
Vetch	3.3	3.5	5.3	6.3	7.6
TOTAL	272.0	295.1	256.7	259.6	266.2

Table 1.13

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN WOLLEGA REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
	Thousand hectares				
CEREALS	403.5	457.5	411.4	431.9	460.4
Teff	152.9	184.4	180.2	158.6	177.6
Barley	23.1	16.8	26.3	13.9	14.4
Wheat	7.4	5.3	6.7	2.4	2.3
Maize	128.1	121.5	108.7	139.5	143.5
Sorghum	60.1	64.6	60.4	74.8	79.7
Millet	31.9	64.9	29.1	42.7	42.9
PULSES	8.6	7.2	5.7	14.8	13.9
Horse beans	10.0	7.9	9.0	5.9	5.5
Chick peas	1.9	2.1	2.1	3.5	0.5
Haricot beans	2.5	3.1	2.9	2.4	2.3
Field peas	3.3	3.0	3.5	3.5	3.3
Lentils	0.9	1.1	1.2	2.5	2.3
OTHERS	21.1	49.0	24.8	23.3	23.9
Neug	19.7	46.3	23.0	23.0	23.6
Flax					
Linseed	1.4	2.7	1.8	0.3	0.3
Vetch	-	-	-	-	
TOTAL	445.2	523.7	454.9	470.0	498.2

Table 1.14

ESTIMATES OF AREA UNDER MAJOR CROPS  
IN WOLLO REGION IN 1974/75(1967 E.C)-1978/79(1971 E.C)

	Estimate in year:				
	1974/75 (1967 E.C)	1975/76 (1968 E.C)	1976/77 (1969 E.C)	1977/78 (1970 E.C)	1978/79 (1971 E.C)
	Thousand hectares				
CEREALS	180.3	178.6	170.5	170.2	158.4
Teff	49.5	56.2	46.4	58.2	64.7
Barley	11.0	5.8	4.9	4.4	3.7
Wheat	30.9	21.9	22.5	20.6	19.9
Maize	8.9	8.0	7.3	7.2	6.8
Sorghum	79.3	85.9	88.5	79.5	63.0
Millet	0.7	0.8	0.9	0.3	0.3
PULSES	39.2	28.9	26.4	35.8	38.0
Horse beans	25.9	21.2	22.9	22.4	24.9
Chick peas	2.5	2.5	0.6	3.9	3.7
Haricot beans	0.7	0.3	0.1	0.1	
Field peas	3.2	2.5	0.8	5.7	5.4
Lentils	6.9	2.4	2.0	3.7	4.0
OTHERS	3.6	4.7	8.9	5.3	5.1
Neug	0.1	0.2	0.2	0.3	0.3
Flax					
Linseed	0.8	1.3	0.9	0.8	0.9
Vetch	2.7	3.2	7.8	4.2	3.9
TOTAL	223.1	212.2	205.3	211.7	201.5

Table 2.1

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN ARSSI REGION IN 1974/75(1967 E.C)  
- 1978/79(1971 E.C.)

Crop	Estimates in year:				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971 E.C.)
Thousand quintals					
CEREALS	4808.4	4802.0	5098.6	5024.1	5177.4
Teff	196.0	218.8	325.4	332.4	328.4
Barley	1270.1	1327.9	1898.4	1748.2	1788.4
Wheat	2496.1	1801.1	1929.2	1910.7	2033.0
Maize	601.0	937.5	691.2	660.0	651.4
Sorghum	245.2	516.7	254.4	372.8	376.2
PULSES	623.7	321.8	647.5	592.1	554.6
Horse beans	384.6	212.1	452.6	460.6	436.2
Chick peas	9.5	5.7	2.3	10.5	7.9
Haricot beans	83.7	31.0	43.6	4.8	5.3
Field peas	66.5	31.9	116.6	97.6	88.6
Lentils	79.4	41.1	32.4	18.6	16.6
OTHERS	43.4	82.1	14.0	37.7	32.2
Neug	1.0	3.1	1.0	1.0	0.9
Flax (Linseed)	41.2	77.4	9.6	32.7	27.3
Vetch	1.2	1.6	3.4	4.0	4.0
TOTAL	5475.5	5205.9	5760.1	5653.9	5764.2

Table 2.2

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN BALE REGION IN 1974/75(1967 E.C.)  
-1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
Thousand quintals					
CEREALS	1082.3	996.4	1664.8	1219.4	1572.6
Teff	45.9	72.2	43.7	36.1	53.3
Barley	767.0	584.1	1145.1	845.0	1049.5
Wheat	200.4	220.2	422.4	282.3	408.2
Maize	66.5	113.2	41.7	37.5	47.1
Sorghum	1.9	4.5	7.6	12.2	9.5
Millet	0.6	2.2	4.3	6.3	5.0
PULSES	54.7	105.4	142.5	114.7	141.3
Horse beans	6.7	10.8	37.0	25.0	31.4
Chick peas	0.4	0.2	0.5	0.5	0.8
Field peas	40.8	89.1	95.5	80.6	99.2
Lentils	6.8	5.3	9.5	8.6	9.9
OTHERS	20.7	31.5	14.9	12.9	15.2
Flax (Linseed)	20.7	31.5	14.9	12.9	15.2
TOTAL	1157.7	1133.3	1822.2	1347.0	1729.1

Table 2.3

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN ERITREA REGION IN 1974/75(1967 E.C.)  
- 1978/79 (1971 E.C.)

Crop	Estimate in Year				
	1974/75 1967E.C.	1975/76 1968E.C.	1976/77 1969E.C.	1977/78 1970E.C.	1978/79 1971E.C.)
	Thousand quintals				
CEREALS	1744.0	2116.8	1767.6	1623.2	1513.5
Teff	156.8	179.3	192.4	207.9	212.6
Barley	242.3	261.1	223.0	153.8	141.6
Wheat	127.1	143.0	117.6	96.3	75.4
Maize	146.0	281.0	172.0	116.2	124.7
Sorghum	840.0	755.2	811.0	803.3	727.1
Millet	231.8	497.2	251.6	245.7	232.1
PULSES	44.7	87.8	101.4	98.4	103.4
Horse beans	9.4	10.8	13.3	14.6	16.9
Chick peas	10.3	24.4	38.3	28.4	26.4
Haricot beans	-	-	-	-	
Field peas	7.7	33.8	35.4	31.9	35.8
Lentils	17.3	18.8	14.4	23.5	24.3
OTHERS	48.8	54.0	78.1	76.4	79.8
FLAX (Linseed)	22.6	24.5	37.2	34.8	36.7
Vetch	26.2	29.5	40.9	41.6	43.1
TOTAL	1837.5	2258.6	1947.1	1798.0	1696.7

Table 2.4

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN GANU GOFFA REGION IN 1974/75 (1967E.C.)  
- 1978/79(1971 E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	Thousand quintals				
CEREALS	340.1	611.7	387.8	419.4	398.3
Teff	62.1	93.4	53.1	57.4	62.7
Barley	93.3	73.7	103.8	72.6	72.8
Wheat	10.7	9.5	12.6	3.9	3.9
Maize	136.1	365.0	174.3	229.1	209.2
Sorghum	36.3	65.1	7.4	42.0	36.5
Millet	1.6	5.0	9.6	14.4	13.2
PULSES	25.9	47.0	65.3	19.5	16.9
Horse beans	4.2	6.6	18.8	4.0	3.7
Chick peas	2.6	5.3	7.0	7.1	5.6
Haricot beans	5.9	5.5	4.8	3.6	3.3
Field peas	12.5	29.3	34.3	4.7	4.2
Lentils	0.7	0.3	0.4	0.1	0.1
TOTAL	366.0	658.7	453.1	438.9	415.2

Table 2.5

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN GOJJAM REGION IN 1974/75(1967 E.C.)  
- 1978/79 (1971 E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	Thousand quintals				
CEREALS	3150.0	2628.5	3629.2	3629.0	3204.2
Teff	1453.2	1202.9	1720.2	1999.5	1809.6
Barley	317.1	236.0	798.2	454.2	372.4
Wheat	243.2	134.5	257.0	224.5	199.6
Maize	482.0	218.9	233.2	359.8	323.8
Sorghum	208.7	195.2	228.8	88.2	58.8
Millet	445.8	641.0	391.8	502.8	440.0
PULSES	427.5	244.6	554.2	375.9	332.2
Horse beans	355.8	183.1	433.1	273.4	237.0
Chick peas	31.1	40.3	80.6	20.7	18.1
Haricot beans	-	-	-	-	-
Field peas	34.3	18.9	36.5	70.0	70.0
Lentils	6.3	2.3	4.0	11.8	7.1
OTHERS	107.1	292.0	99.6	165.2	145.8
Neug	70.3	232.8	71.6	111.6	92.6
Flax (Linseed)	31.4	52.4	21.3	28.5	25.3
Vetch	5.4	6.8	6.7	25.1	27.9
TOTAL	3684.6	3165.1	4283.0	4170.1	3682.2

Table 2.6

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN GONDAR REGION IN 1974/75(1967E.C.)  
-1978/79(1971 E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
Thousand quintals					
CEREALS	29,82.4	2504.9	3442.1	4569.0	4464.8
Teff	1229.2	983.2	1321.3	1929.7	2059.0
Barley	525.6	367.4	1065.0	1094.7	909.7
Wheat	249.7	139.7	302.7	125.7	111.2
Maize	140.9	59.6	45.1	183.7	186.1
Sorghum	406.3	334.7	334.5	546.7	601.9
Millet	430.7	620.3	373.5	688.5	596.9
PULSES	767.6	539.5	975.00	1310.8	958.2
Horse beans	383.9	188.3	357.0	417.9	310.9
Chick peas	232.1	279.1	352.6	587.2	381.7
Haricot beans	11.5	2.8	1.6	1.3	1.3
Field peas	81.6	44.8	190.4	215.3	215.3
Lentils	58.5	24.5	73.4	89.1	49.0
OTHERS	121.5	299.4	157.0	247.9	232.6
Neug	89.5	242.3	76.7	108.2	113.6
Flax (Linseed)	6.0	9.8	8.0	8.1	7.1
Vetch	26.0	47.3	72.3	131.6	111.9
TOTAL	3871.5	3343.8	4574.1	6127.7	5655.6

Table 2.7

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN HARARGHE REGION IN 1974/75(1967 E.C.)  
- 1978/79(1971 E.C.)

Crop	Estimate				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
Thousand quintals					
CEREALS	1646.5	2930.6	1686.1	1531.0	1602.9
Teff	26.7	18.0	18.0	16.5	18.2
Barley	9.9	8.6	9.7	8.3	8.4
Wheat	60.5	44.0	50.4	38.5	34.7
Maize	401.6	445.8	311.2	283.8	302.8
Sorghum	1137.0	2389.0	1283.1	1176.6	1230.7
Millet	10.8	25.2	13.7	7.3	8.1
PULSES	80.1	33.6	32.5	26.5	26.8
Horse beans	17.2	9.0	16.2	14.0	12.7
Chick peas	1.5	1.1	1.2	1.1	1.4
Haricot beans	45.9	16.8	7.9	4.6	5.6
Field peas	4.8	1.6	3.5	3.3	3.1
Lentils	10.7	5.1	3.7	3.5	4.0
TOTAL	1726.6	2964.2	1718.6	1557.5	1629.7

Table 2.8

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN ILLUBABOR REGION IN 1974/75(1967E.C.)  
- 1978/79 (1971 E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
Thousand quintals					
CEREALS	978.4	1372.0	838.3	967.2	1113.3
Teff	238.1	349.3	269.5	266.9	325.4
Barley	26.8	14.0	25.1	11.8	12.8
Wheat	67.2	27.4	30.7	4.8	3.7
Maize	500.4	731.7	356.3	479.5	539.9
Sorghum	97.8	122.8	114.1	148.1	168.7
Millet	48.1	126.8	42.6	56.1	62.8
PULSES	30.9	34.3	61.4	23.9	21.5
Horse beans	8.9	11.9	15.0	2.3	1.9
Chick peas	3.2	6.4	7.2	10.8	9.9
Haricot beans	0.8	0.4	0.7	2.3	2.6
Field peas	18.0	15.6	38.5	8.5	7.1
Lentils					
OTHERS	3.8	10.4	5.5	4.7	4.6
Neug	2.5	6.3	4.8	4.6	4.6
Flax (Linseed)	4.3	4.1	0.7	0.1	0.0
TOTAL	1013.1	1416.7	905.2	995.8	1139.4

Table 2.9

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN KEFFA REGION IN 1974/75(1967E.C.)  
-1978/79(1971E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
Thousand quintals					
CEREALS	2309.6	3517.5	2215.0	450.8	2872.3
Teff	562.8	916.5	605.8	807.5	914.1
Barley	101.6	55.9	96.9	158.9	182.7
Wheat	92.9	36.0	36.0	80.6	86.2
Maize	1288.6	2077.7	1054.0	199.1	1452.1
Sorghum	221.8	321.1	405.3	170.5	202.7
Millet	41.9	110.3	17.0	34.2	34.5
PULSES	81.9	119.7	476.9	140.4	152.6
Horse beans	57.7	98.8	424.2	47.6	51.7
Chick peas	1.8	0.6	0.7	0.1	0.04
Haricot beans					
Field peas	22.4	20.3	52.0	92.7	100.9
OTHERS	8.2	31.4	11.7	6.2	6.1
Neug	7.8	30.3	11.3	6.1	6.1
Flax (Linseed)	0.4	1.1	0.4	0.1	0.1
TOTAL	2399.7	3668.6	2703.6	2 97.4	3031.0

Table 2.10

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN S.H.C. REGION IN 1974/75(1967E.C.)  
- 1978/79 (1971 E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
	Thousand quintals				
CEREALS	8738.2	10862.9	10320.7	8888.3	9234.1
Teff	2168.8	3102.3	2768.5	2318.5	2687.1
Barley	1361.5	1112.9	1396.6	1139.2	1125.5
Wheat	2073.9	1606.0	1663.4	812.5	823.9
Maize	1696.9	2824.4	2531.0	2824.0	3016.0
Sorghum	1425.0	2199.5	1918.5	1776.3	1564.9
Millet	12.1	17.8	42.7	17.8	16.7
PULSES	1919.4	2237.9	2201.6	1648.1	1619.8
Horse beans	1127.4	1199.3	1103.1	1098.8	1087.8
Chick peas	354.7	438.4	365.2	201.3	207.3
Haricot beans	105.8	308.4	169.0	76.8	71.4
Field peas	105.3	105.6	315.0	163.8	157.1
Lentils	226.2	186.2	249.3	107.4	96.2
OTHERS	96.2	217.2	144.2	90.4	83.9
Neug	34.7	127.4	39.2	15.8	11.6
Flax (Linseed)	29.7	52.4	72.7	18.8	12.3
Vetch	31.8	37.4	32.3	55.8	60.0
TOTAL	10753.8	13318.0	12666.5	10626.8	10937.8

Table 2.11

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN SIDAMO REGION IN 1974/75 (1967E.C.)  
-1978/79(1971 E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
Thousand quintals					
CEREALS	1034.0	2171.0	1730.3	1191.7	1230.4
Teff	119.3	243.8	204.3	105.5	126.6
Barley	253.4	203.6	391.9	159.1	179.3
Wheat	61.5	83.4	255.0	6.9	6.5
Maize	560.8	1528.3	610.4	900.7	899.8
Sorghum	39.0	111.9	268.7	19.5	18.2
PULSES	83.0	90.9	225.5	84.7	84.5
Horse beans	11.7	19.9	61.3	17.6	18.2
Chick peas	24.3	28.7	104.3	24.3	25.2
Haricot beans	43.6	35.9	54.6	28.1	25.5
Field peas	3.0	6.0	3.9	14.1	15.0
Lentils	0.4	0.4	1.4	0.6	0.6
TOTAL	1117.0	2261.9	1955.8	1276.4	1314.9

Table 2.12

ESTIMATES OF PRODUCTION OF MAJOR CROP  
IN TIGRAI REGION IN 1974/75(1967E.C.)  
-1978/79(1971E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C.)	1975/76 (1968E.C.)	1976/77 (1969E.C.)	1977/78 (1970E.C.)	1978/79 (1971E.C.)
Thousand quintals					
CEREALS	2014.0	2746.7	1833.9	1754.3	1698.1
Teff	540.5	506.9	479.6	483.0	500.7
Barley	272.5	267.4	251.1	207.9	192.4
Wheat	539.1	428.0	308.8	229.8	200.2
Maize	106.1	171.9	81.3	84.2	93.1
Sorghum	380.2	373.9	440.4	497.3	474.2
Millet	175.6	998.6	272.7	252.1	237.5
PULSES	356.3	231.4	237.3	211.2	203.1
Horse beans	101.8	97.7	101.9	104.5	99.3
Chick peas	200.9	93.4	98.2	68.5	61.9
Haricot beans	5.0	3.1	2.9	1.3	1.2
Field peas	12.6	19.7	22.6	18.6	23.2
Lentils	36.0	17.5	11.7	18.3	17.5
OTHERS	48.3	78.9	56.1	54.4	54.2
Neus	7.7	21.3	9.5	10.5	9.7
Flax (Linseed)	22.8	36.6	8.4	7.4	7.2
Vetch	17.8	21.0	38.2	36.5	37.3
TOTAL	2418.6	3057.0	2127.3	2019.9	1955.4

Table 2.13

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN WELLEGA REGION IN 1974/75(1967 E.C.)  
- 1978/79(1971 E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	Thousand quintals				
CEREALS	3358.4	5528.4	4564.5	2298.6	2353.6
Teff	1009.1	1438.3	1369.5	798.2	830.1
Barley	136.5	117.5	186.7	73.2	73.1
Wheat	28.2	23.4	30.8	12.6	11.7
Maize	1664.7	2660.0	2184.9	723.6	727.2
Sorghum	360.6	568.7	507.4	449.9	482.7
Millet	159.3	720.5	285.2	241.1	228.8
PULSES	82.1	111.8	107.4	73.4	64.8
Horse beans	57.2	61.9	64.8	26.9	23.5
Chick peas	5.9	7.2	7.4	0.9	0.9
Haricot beans	12.0	32.6	18.9	13.7	12.7
Field peas	5.2	5.1	14.7	17.9	15.3
Lentils	1.8	5.0	1.6	14.0	12.4
OTHERS	34.7	140.9	45.2	101.9	92.7
Neug	33.4	138.8	41.4	100.7	91.6
Flax (Linseed)	4.3	2.1	3.8	1.2	1.1
TOTAL	3475.2	5781.1	4717.1	2473.9	2511.1

Table 2.14

ESTIMATES OF PRODUCTION OF MAJOR CROPS  
IN WOLLO REGION IN 1974/75( 1967E.C.)  
-1978/79(1971E.C.)

Crop	Estimate in Year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	Thousand quintals				
CEREALS	1932.5	1796.4	1765.8	1851.4	1659.3
Teff	455.4	404.6	440.8	649.5	672.9
Barley	99.4	72.6	43.6	30.5	21.9
Wheat	380.6	339.1	245.3	186.6	184.9
Maize	132.2	202.6	96.4	76.1	68.0
Sorghum	864.8	764.5	929.3	904.9	707.6
Millet	0.1	13.0	10.4	3.8	4.0
PULSES	342.7	317.0	325.7	346.3	352.7
Horse beans	264.0	261.0	297.7	276.8	287.9
Chick peas	36.5	12.1	4.6	7.7	6.7
Haricot beans	4.4	2.2	0.4	0.5	0.5
Field peas	18.3	21.9	4.9	29.2	27.8
Lentils	19.0	19.8	18.1	32.1	29.8
OTHERS	22.2	29.1	74.8	28.9	19.3
Neug	0.5	0.8	0.2	0.4	0.5
Flax (Linseed)	5.7	7.9	2.1	3.1	3.5
Vetch	16.0	20.4	72.5	25.4	15.3
TOTAL	2297.4	2142.5	2166.3	2226.6	2031.3

Table 3.1

ESTIMATES OF YIELD OF MAJOR CROPS  
IN ARSSI REGION IN 1974/75(1967 E.C.)  
1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
quintals/hectare					
CEREALS	10.8	14.0	14.0	12.6	12.2
Teff	8.0	7.9	13.5	13.2	11.3
Barley	8.2	12.4	13.9	11.3	10.9
Wheat	12.4	12.5	13.5	12.4	12.4
Maize	13.4	21.4	16.0	15.8	14.8
Sorghum	12.2	24.8	13.9	15.7	15.1
PULSES	9.1	6.2	10.5	9.7	8.4
Horse beans	12.0	8.1	18.4	12.3	10.6
Chick peas	7.9	5.2	4.6	10.5	7.2
Haricot beans	7.9	4.7	4.0	4.0	4.1
Field peas	5.3	2.5	6.7	6.2	5.2
Lentils	6.7	7.6	3.9	3.4	3.1
OTHERS	4.9	6.4	2.6	7.5	6.9
Neug	2.5	3.4	2.0	5.0	3.0
Flax Linseed	5.0	6.7	2.4	8.6	8.0
Vetch	6.0	5.3	4.3	4.0	4.0
TOTAL	10.5	12.7	13.3	12.2	11.6

Table 3.2

ESTIMATES OF YIELD OF MAJOR CROPS  
IN BALE REGION IN 1974/75(1967E.C)  
1978/79(1971E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
quintals/hectares					
CEREALS	8.1	10.4	14.6	12.8	12.8
Teff	5.5	8.4	5.9	6.6	6.5
Barley	11.1	11.8	16.5	13.7	13.5
Wheat	4.0	6.5	12.0	11.0	12.0
Maize	10.7	31.4	41.7	41.7	39.3
Sorghum	9.5	11.3	9.5	8.7	8.6
Millet	6.0	7.3	7.2	6.3	6.3
PULSES	4.0	8.5	8.5	8.6	8.6
Horse beans	2.3	4.5	13.7	11.9	12.6
Chick peas	4.0	2.0	5.0	5.0	8.0
Field peas	4.5	9.7	7.4	7.8	7.5
Lentils	4.3	7.6	8.6	10.8	16.5
OTHERS	3.5	3.4	3.3	5.9	5.4
Flax Linseed	3.5	3.4	3.3	5.9	5.4
TOTAL	7.5	9.6	13.4	12.1	12.1

Table 3.3

ESTIMATES OF YIELD OF MAJOR CROPS  
IN ERITREA REGION IN 1974/75(1967E.C.)  
1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
quintals/hectares					
CEREALS	8.2	10.1	8.8	7.5	7.3
Teff	7.0	7.2	7.1	7.4	7.4
Barley	8.5	11.4	8.2	6.2	5.5
wheat	7.7	9.6	6.8	5.7	4.7
Maize	9.3	15.7	9.2	6.6	6.9
Sorghm	9.2	8.4	10.0	8.5	8.8
Millet	6.1	12.4	8.5	7.0	6.7
PULSES	5.3	5.9	5.8	5.9	5.9
Horse beans	4.1	4.9	5.3	5.2	5.5
Chick peas	4.7	4.0	5.1	4.5	3.9
Field peas	4.8	7.2	6.8	6.5	7.2
Lentils	7.5	9.4	6.0	8.4	9.3
OTHERS	4.6	4.5	4.8	4.6	4.9
Flax Linsced	3.7	3.5	3.8	3.7	3.8
Vetch	5.7	5.9	6.2	5.7	5.3
TOTAL	7.9	9.5	8.3	7.2	7.0

Table 3.4

ESTIMATES OF YIELD OF MAJOR CROPS  
IN GAMOGOFA REGION IN 1974/75(1967 E.C.)  
1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	quintals/hectares				
CEREALS	4.5	9.5	6.7	5.1	4.6
Teff	4.6	6.4	4.5	4.4	4.3
Barley	4.1	4.4	6.2	2.4	2.2
Wheat	3.0	4.8	9.0	2.6	2.6
Maize	4.9	14.7	8.5	8.4	7.1
Sorghum	4.6	11.4	5.3	6.3	5.6
Millet	4.0	7.1	6.4	6.0	5.5
PULSES	4.4	8.7	8.9	2.7	2.3
Horse beans	2.5	5.1	15.7	2.7	2.5
Chick peas	3.7	5.9	5.4	3.1	2.2
Haricot beans	4.9	6.1	4.0	4.0	3.7
Field peas	6.0	12.7	9.8	1.9	1.8
Lentils	3.5	7.3	4.0	1.0	1.0
TOTAL	4.5	9.4	7.0	4.9	4.4

Table 3.5

ESTIMATES OF YIELD OF MAJOR CROPS  
IN GOJJAM REGION IN 1974/75(1967 E.C.)  
1978/79 (1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	quintals/hectares				
CEREALS	7.2	5.2	7.7	7.7	7.0
Teff	6.8	4.6	6.9	7.9	7.4
Barley	3.8	3.7	8.5	5.1	4.3
Wheat	6.8	5.5	11.9	7.9	7.2
Maize	13.7	6.1	6.9	7.6	6.7
Sorghum	9.3	8.3	8.2	9.6	6.5
Millet	9.9	6.9	8.3	10.8	10.5
PULSES	7.5	4.7	9.5	7.1	6.4
Horse beans	9.6	5.9	12.2	9.2	8.1
Chick peas	4.2	4.2	8.4	3.6	3.0
Field peas	3.3	1.8	2.9	4.3	4.5
Lentils	2.9	2.6	4.0	11.8	7.1
OTHERS	2.2	2.7	1.8	3.0	2.7
Neug	2.2	3.0	1.8	2.8	2.4
Flax Linseed	2.0	1.9	1.6	2.7	2.5
Vetch	2.7	4.0	5.6	4.8	5.1
TOTAL	6.8	4.8	7.3	7.2	6.6

Table 3.6

ESTIMATES OF YIELD OF MAJOR CROPS  
IN GONDAR REGION IN 1974/75 (1967 E.C.)  
1978/79 (1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
quintals/hectares					
CEREALS	6.4	4.9	7.5	9.5	9.1
Teff	6.1	4.2	6.1	9.6	10.0
Barley	5.6	5.4	12.5	9.1	7.5
Wheat	5.4	4.4	9.2	4.8	4.2
Maize	9.7	4.3	4.8	6.9	6.7
Sorghum	6.5	5.1	5.0	10.1	10.5
Millet	9.1	6.3	7.5	13.3	11.2
PULSES	5.3	4.1	7.7	9.8	7.0
Horse, beans	7.6	4.7	9.7	7.7	5.4
Chick peas	4.2	4.3	6.9	11.0	7.2
Haricot beans	6.1	4.0	2.7	2.6	2.6
Field peas	4.6	2.5	7.0	14.1	13.1
Lentils	3.1	3.1	7.2	9.0	4.9
OTHERS	2.7	3.1	2.4	4.1	3.9
Neug	2.7	3.0	1.8	2.7	2.8
Flax Linseed	2.2	2.1	4.0	3.9	3.4
Vetch	2.6	4.0	3.3	7.2	6.1
TOTAL	5.9	4.5	7.0	9.1	8.2

Table 3.7

ESTIMATES OF YIELD OF MAJOR CROPS  
IN HARARGE REGION IN 1974/75 (1967 E.C)  
1973/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	quintals/hectares				
CEREALS	6.5	11.7	7.1	6.7	7.5
Teff	4.3	3.4	5.8	6.1	7.0
Barley	3.3	5.1	5.7	4.9	5.3
Wheat	5.7	5.3	6.3	5.6	6.0
Maize	8.6	10.3	7.8	6.9	7.6
Sorghum	6.1	12.5	7.0	6.7	7.6
Millet	10.8	14.0	11.4	10.4	10.1
PULSES	10.1	6.7	7.2	6.5	8.1
Horse beans	4.4	3.0	5.4	4.8	5.3
Chick peas	7.5	3.7	4.0	5.5	14.0
Haricot beans	18.4	16.8	15.8	15.3	18.7
Field peas	8.0	4.0	11.7	11.0	15.5
Lentils	15.3	17.0	9.3	8.8	13.3
TOTAL	6.6	11.6	7.1	6.7	7.6

Table 3.8

ESTIMATES OF YIELD OF MAJOR CROPS  
IN ILLUBABOR REGION IN 1974/75(1967 E.C.)  
1978/79 (1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	quintals/hectares				
CEREALS	7.5	10.1	6.8	7.6	8.0
Teff	5.4	6.5	5.0	5.9	6.9
Barley	6.2	4.7	5.7	3.6	3.7
Wheat	13.4	7.2	6.4	2.3	2.1
Maize	8.4	13.5	7.5	8.7	8.5
Sorghum	7.0	9.2	11.3	9.4	9.6
Millet	12.3	16.3	13.3	10.0	10.1
PULSES	3.7	4.4	6.3	2.9	2.4
Horse beans	3.4	6.6	11.5	1.3	1.0
Chick peas	5.3	7.1	6.0	6.0	5.0
Haricot beans	8.0	2.0	3.5	7.7	6.5
Field peas	3.6	3.2	5.5	2.0	1.5
OTHERS	6.3	7.4	3.9	3.4	3.3
Neug	6.3	7.0	4.8	3.5	3.5
TOTAL	7.2	9.8	6.7	7.3	7.6

Table 3.9

ESTIMATES OF YIELD OF MAJOR CROPS  
IN KEFFA REGION IN 1974/75 (1967 E.C.)  
1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
quintals/hectares					
CEREALS	9.2	13.3	9.0	7.8	8.0
Teff	7.0	9.4	6.9	7.7	7.8
Barley	5.6	4.1	5.1	7.6	7.9
Wheat	7.1	3.8	3.3	11.5	11.3
Maize	11.8	19.1	10.7	8.3	8.5
Sorghum	8.4	11.1	13.6	6.1	6.5
Millet	14.0	19.7	17.0	4.8	4.6
PULSES	3.7	5.8	16.9	8.4	8.8
Horse beans	3.8	7.5	24.1	6.3	6.6
Chick peas	9.0	2.0	1.8	0.3	0.1
Field peas	3.3	2.8	5.1	10.4	10.9
OTHERS	7.5	12.1	7.3	4.8	4.7
Neug	7.8	12.1	7.5	5.1	5.1
Flax Linseed	4.0	11.0	4.0	1.0	0.0
TOTAL	8.8	12.8	9.8	7.9	8.1

Table 3.10

ESTIMATES OF YIELD OF MAJOR CROPS  
IN SHOA REGION IN 1974/75 (1967 E.C.)  
1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
	quintals/hectares				
CEREALS	8.3	11.2	10.9	8.9	8.9
Teff	7.3	9.0	8.8	7.6	7.8
Barley	7.6	9.0	9.2	5.9	5.6
Wheat	7.7	8.8	9.2	5.1	5.1
Maize	9.1	15.4	14.1	15.0	15.4
Sorghum	11.5	16.9	16.3	11.9	11.4
Millet	4.2	13.7	12.2	5.2	5.2
PULSES	6.0	9.4	9.1	7.6	7.3
Horse beans	8.6	11.9	10.9	11.0	10.3
Chick peas	6.1	6.6	6.7	4.5	4.5
Haricot beans	2.8	13.9	6.4	6.2	6.3
Field peas	4.1	4.4	10.9	5.6	5.3
Lentils	3.5	7.3	8.2	3.6	3.2
OTHERS	3.8	5.2	5.6	4.3	3.7
Neug	4.0	7.2	4.4	4.5	3.2
Flax Linseed	3.0	2.9	7.2	3.5	2.1
Vetch	4.8	6.2	4.9	4.6	4.6
TOTAL	7.7	10.7	10.4	8.6	8.5

Table 3.11

ESTIMATES OF YIELD OF MAJOR CROPS .  
IN SIDAMO REGION IN 1974/75(1967 E.C.)  
1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75	1975/76	1976/77	1977/78	1978/79
	1967E.C	1968E.C	1969E.C	1970E.C	1971E.C
	quintals/hectares				
CEREALS	8.0	18.1	13.3	8.2	7.4
Teff	7.8	12.5	9.0	9.3	9.5
Barley	6.8	7.2	10.1	3.4	3.3
Wheat	4.1	6.6	12.2	13.8	13.0
Maize	10.4	30.8	17.9	10.6	9.5
Sorghum	4.7	11.5	19.9	8.1	7.6
PULSES	5.3	7.3	15.7	8.3	7.9
Horse beans	4.0	8.0	24.5	5.5	5.4
Chick peas	7.8	6.5	17.1	7.6	7.2
Haricot beans	4.9	7.5	10.5	11.7	11.1
Field peas	4.3	10.0	7.8	10.8	10.7
Lentils	4.0	4.0	14.0	6.0	6.0
TOTAL	7.7	17.1	13.5	8.2	7.5

Table 3.12

ESTIMATES OF YIELD OF MAJOR CROPS  
IN TIGRAI REGION IN 1974/75(1967 E.C.)  
1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
quintals/hectares					
CEREALS	8.9	11.2	8.6	8.0	7.7
Teff	9.1	7.2	7.3	7.5	7.5
Barley	8.7	12.0	8.6	6.3	7.5
Wheat	9.9	11.3	8.0	6.7	5.6
Maize	14.5	24.6	12.9	10.4	16.1
Sorghum	8.7	8.2	10.1	11.2	10.7
Millet	5.8	16.0	9.0	7.1	5.6
PULSES	10.0	7.0	7.6	7.5	6.8
Horse beans	9.1	11.0	11.2	11.0	10.8
Chick peas	12.0	4.8	6.1	5.0	4.0
Haricot beans	5.6	6.2	4.8	6.5	4.0
Field peas	5.5	8.6	7.3	6.9	8.6
Lentils	7.8	9.7	5.1	8.3	8.0
OTHERS	4.9	4.8	4.8	4.7	3.5
Neug	2.5	2.9	2.5	3.0	1.8
Flax Linseed	6.7	6.5	3.1	4.1	2.9
Vetch	5.4	6.0	7.2	5.8	4.9
TOTAL	8.9	10.4	8.3	7.8	7.3

Table 3.13

ESTIMATES OF YIELD OF MAJOR CROPS  
IN WELLEGA REGION IN 1974/75(1967 E.C.)  
1978/79(1971 E.C)

Crop	Estimate in year: -				
	1974/75 1967 E.C	1975/76 1968 E.C	1976/77 1969 E.C	1977/78 1970 E.C	1978/79 1971 E.C
			quintals/ hectares		
CEREALS	8.3	12.1	11.1	5.3	5.1
Teff	6.6	7.8	7.6	5.0	4.7
Barley	5.9	7.0	7.1	5.3	5.1
Wheat	3.8	4.4	4.6	5.3	5.1
Maize	13.0	21.9	20.1	5.2	5.1
Sorghum	6.0	8.8	8.4	6.0	6.1
Millet	5.0	11.1	9.8	5.6	5.3
PULSES	4.4	6.5	5.7	5.0	4.7
Horse beans	5.7	7.8	7.2	4.6	4.3
Chick peas	3.1	3.4	3.5	1.8	1.8
Haricot beans	4.8	10.5	6.5	5.7	5.5
Field peas	1.6	1.9	4.2	5.1	4.6
Lentils	2.0	4.5	1.3	5.6	5.4
OTHERS	1.6	2.9	1.8	4.4	3.9
Neug	1.77	3.0	1.8	4.4	3.9
Flax (Linseed)	0.9	0.8	2.1	4.0	3.7
TOTAL	7.8	11.0	10.4	5.3	5.0

Table 3.14

ESTIMATES OF YIELD OF MAJOR CROPS  
IN WOLLO REGION IN 1974/75(1967 E.C.)  
1978/79(1971 E.C.)

Crop	Estimate in year:				
	1974/75 (1967E.C)	1975/76 (1968E.C)	1976/77 (1969E.C)	1977/78 (1970E.C)	1978/79 (1971E.C)
quintals/hectares					
CEREALS	10.7	10.1	10.4	10.9	10.5
Teff	9.2	7.2	9.5	11.2	10.4
Barley	9.0	12.5	8.9	6.9	5.9
Wheat	12.3	15.5	10.9	9.1	9.3
Maize	14.9	25.3	13.2	10.6	10.0
Sorghum	10.9	8.9	10.5	11.4	11.2
Millet	0.1	16.3	11.6	12.7	13.3
PULSES	8.7	11.0	12.3	9.7	9.3
Horse beans	10.2	12.3	13.0	12.4	11.6
Chick peas	14.6	4.8	7.7	2.0	1.8
Haricot beans	6.3	7.3	4.0	5.0	5.0
Field peas	5.9	8.8	6.1	5.1	5.1
Lentils	2.8	8.3	9.1	8.7	7.5
OTHERS	6.2	6.2	8.4	5.5	3.8
Neug	5.0	4.0	1.0	1.3	1.7
Flax Linseed	7.1	6.1	2.3	3.9	3.9
Vetch	5.9	6.4	9.3	6.0	3.9
TOTAL	10.3	10.1	10.5	10.5	10.1

Table 4.1

AREA UNDER TEFF ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	29.3	2.8	25.4	2.0
Bale	15.2	1.4	7.4	0.6
Gondar	214.2	20.3	213.4	16.8
Gamo Goffa	15.5	1.5	13.2	1.0
Gojam	132.8	12.6	244.7	19.3
Hararge	18.3	1.7	4.3	0.3
Illubabor	31.9	3.0	49.3	3.9
Kefa	49.3	4.7	92.6	7.3
Shoa	312.1	29.5	315.7	24.9
Sidamo	8.8	0.8	17.2	1.4
Tigray	52.4	5.0	65.0	5.1
Wollega	122.9	11.6	169.0	13.3
Wollo	54.3	5.1	52.6	4.1
TOTAL	1057.0	100.0	1269.8	100.0

Table 4.2

AREA UNDER BARLEY ESTIMATED ACCORDING THE SECOND  
ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	203.6	26.2	138.1	20.4
Bale	77.7	10.0	62.4	9.2
Gondar	71.2	9.2	91.4	13.5
Gamo Goffa	13.5	1.7	22.8	3.4
Gojam	40.8	5.3	82.5	12.2
Hararge	8.7	1.1	2.0	0.3
Illubabor	5.3	0.7	3.8	0.6
Kefa	10.1	1.3	17.9	2.6
Shoa	228.8	29.4	161.5	23.9
Sidamo	15.3	2.0	37.8	5.6
Tigray	33.2	4.3	29.0	4.3
Wollega	28.6	3.7	20.0	3.0
Wollo	39.2	5.1	6.5	1.0
TOTAL	776.0	100.0	675.7	100.0

Table 4.3

AREA UNDER WHEAT ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	68.1	17.5	160.5	28.4
Bale	35.3	9.1	36.2	6.4
Gondar	28.5	7.3	34.2	6.1
Gamo Goffa	5.0	1.3	2.1	0.4
Gojam	17.8	4.6	27.5	4.9
Hararge	4.4	1.1	8.3	1.5
Illubabor	1.7	0.4	3.9	0.7
Kefa	5.6	1.4	10.7	1.9
Shoa	174.1	44.8	198.2	35.1
Sidamo	1.3	0.4	12.3	2.1
Tigrai	28.7	7.4	41.3	7.3
Wollega	4.4	1.1	5.5	1.0
Wollo	13.7	3.5	24.0	4.3
TOTAL	388.6	100.0	564.7	100.0

Table 4.4

AREA UNDER MAIZE ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	42.3	6.2	43.5	6.1
Bale	26.1	3.8	2.9	0.4
Gondar	7.9	1.2	16.1	2.2
Gamo Goffa	40.7	5.9	25.1	3.5
Gojam	13.0	1.9	38.0	5.3
Hararge	60.6	8.8	42.7	6.0
Illubabor	82.6	12.0	54.1	7.5
Kefa	59.6	8.7	115.3	16.1
Shoa	153.6	22.3	184.4	25.7
Sidamo	49.9	7.3	55.7	7.8
Tigray	6.8	1.0	7.2	1.0
Wollega	130.7	19.0	124.4	17.3
Wollo	13.1	1.9	7.9	1.1
TOTAL	686.9	100.0	717.3	100.0

Table 4.5

AREA UNDER SORGHUM ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	21.2	2.9	20.7	3.1
Bale	0.5	0.1	0.7	0.1
Gondar	76.6	10.7	62.3	9.3
Gamo Goffa	29.8	4.2	5.4	0.8
Gojam	34.7	4.8	20.8	3.1
Hararge	244.1	33.9	183.8	27.5
Illubabor	23.8	3.4	13.3	2.0
Kefa	17.5	2.4	28.3	4.2
Shoa	110.9	15.4	130.4	19.6
Sidamo	5.6	0.8	9.2	1.4
Tigrai	49.9	6.9	44.3	6.6
Wollega	40.3	5.6	65.0	9.7
Wollo	64.1	8.9	83.3	12.6
TOTAL	719.0	100.0	667.5	100.0

Table 4.6

AREA UNDER MILLET ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	-	-	-	-
Bale	-	-	0.5	0.2
Gondar	45.0	28.3	61.8	28.7
Gamo Goffa	0.2	0.1	4.3	0.6
Gojam	47.1	29.6	57.9	26.8
Hararge	0.1	0.1	1.2	0.6
Illubabor	4.1	2.6	5.1	2.4
Kefa	2.8	1.8	4.2	1.9
Shoa	0.0	0.0	1.7	0.8
Sidamo	-	-	-	-
Tigrai	29.3	18.5	39.6	18.4
Wollega	30.2	19.0	42.1	19.5
Wollo	0.0	0.0	0.3	0.1
TOTAL	158.8	100.0	215.7	100.0

Table 4.7

AREA UNDER HORSE BEANS ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	10.5	5.2	30.0	10.6
Bale	1.6	0.8	2.5	0.9
Gondar	25.5	12.7	45.5	16.1
Gamo Goffa	1.3	0.7	1.4	0.5
Gojam	14.9	7.4	33.3	11.8
Hararge	3.3	1.7	3.2	1.1
Illubabor	3.8	1.9	1.9	0.7
Kefa	6.0	3.0	13.4	4.7
Shoa	105.9	52.8	108.3	38.2
Sidamo	0.7	0.4	2.2	1.0
Tigray	7.0	3.5	9.7	3.4
Wollega	7.9	3.9	8.2	2.9
Wollo	12.1	6.0	23.1	8.1
TOTAL	200.5	100.0	283.3	100.0

Table 4.8

AREA UNDER CHICK PEAS ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	2.8	2.1	1.0	0.7
Bale	0.0	0.0	0.1	0.1
Gondar	42.7	31.4	56.2	37.9
Gamo Goffa	0.2	0.1	1.3	0.9
Gäjam	1.2	0.9	8.1	5.5
Hararge	.01	0.01	0.3	0.2
Illubabor	0.1	0.1	1.1	0.7
Kefa	0.01	0.0	0.2	0.1
Shoa	65.9	48.5	55.9	37.7
Sidamo	0.0	0.0	3.4	2.3
Tigray	16.3	12.0	16.5	11.1
Wollega	3.2	2.4	1.7	1.2
Wollo	3.4	2.5	2.4	1.6
TOTAL	135.8	100.0	148.2	100.0

Table 4.9

AREA UNDER HARICOT BEAN ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	2.3	9.8	7.3	16.6
Bale	-	-	-	-
Gondar	2.2	9.4	0.8	1.8
Gamo Goffa	1.0	4.3	1.1	2.7
Gojam	-	-	-	-
Hararge	3.1	13.2	1.1	2.5
Illubabor	0.0	0.0	0.2	0.5
Kefa	0.4	1.7	0.0	0.0
Shoa	6.5	27.8	24.7	56.0
Sidamo	3.9	16.7	5.3	12.00
Tigray	0.3	1.3	0.5	1.1
Wollega	2.5	10.7	2.7	6.1
Wollo	1.2	5.1	0.3	0.7
TOTAL	23.4	100.0	44.0	100.0

Table 4.10

AREA UNDER FIELD PEAS ESTIMATED ACCORDING THE SECOND  
TOUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	13.9	8.7	14.6	13.2
Bale	11.3	7.1	10.6	9.6
Gondar	27.9	17.5	19.5	17.7
Gamo Goffa	0.8	0.5	2.6	2.4
Gojam	9.5	6.0	12.4	11.2
Hararge	3.1	1.9	0.4	0.4
Illubabor	9.8	6.2	5.3	4.8
Kefa	4.5	2.8	8.3	7.5
Shoa	55.4	34.7	26.9	24.4
Sidamo	1.2	0.8	0.8	0.7
Tigrai	3.6	2.3	2.6	2.4
Wollega	7.9	5.0	3.3	3.0
Wollo	10.4	6.5	3.0	2.7
TOTAL	159.3	100.0	110.3	100.0

Table 4.11

AREA UNDER LENTILS ESTIMATED ACCORDING THE SECOND ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	0.3	1.2	7.8	11.5
Bale	0.0	0.0	1.1	1.6
Gondar	2.8	10.8	11.7	17.2
Gamo Goffa	0.1	0.4	0.1	0.1
Gojam	0.7	2.7	1.3	1.9
Hararge	0.1	0.4	0.5	0.7
Illubabor	-	-	-	-
Kefa	-	-	-	-
Shoa	18.2	70.0	37.8	55.5
Sidamo	-	-	-	-
Tigray	1.0	3.8	2.7	4.0
Wollega	0.0	0.0	1.4	2.1
Wollo	2.8	10.7	3.7	5.4
TOTAL	26.0	100.0	68.1	100.0

Table 4.12

AREA UNDER FLAX ESTIMATED ACCORDING THE SECOND  
ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	17.4	41.3	6.9	14.1
Bale	9.2	21.9	5.5	11.2
Gondar	1.2	2.9	2.9	5.9
Gamo Goffa	0.0	0.0	0.0	0.0
Gojam	6.3	15.0	16.8	34.3
Hararge	0.1	0.2	0.0	0.0
Illubabor	0.0	0.0	0.3	0.6
Kefa	0.0	0.0	0.1	0.2
Shoa	2.7	6.4	10.8	22.1
Sidamo	-	-	-	-
Tigrai	3.3	7.8	3.4	6.9
Wollega	0.7	1.6	1.5	3.1
Wollo	1.2	2.9	0.8	1.6
TOTAL	42.1	100.0	49.0	100.0

Table 4.13

AREA UNDER NEUG ESTIMATED ACCORDING THE SECOND  
ROUND SURVEY AND THE SAMPLE SURVEYS IN 1974/75-1977/78

Region	Area estimated according to:			
	the Second Round Survey		the Sample Surveys in 1974/75-1977/78	
	Thous. ha	Per cent	Thous. ha	Per cent
Arssi	0.6	0.8	0.5	0.4
Bale	0.3	0.4	0.0	0.0
Gondar	19.0	26.0	49.1	34.7
Gamo Goffa	-	-	-	-
Gojam	18.5	25.3	47.4	33.5
Hararge	-	-	-	-
Illubabor	0.5	0.7	0.9	0.6
Kefa	0.1	0.1	1.5	1.1
Shoa	16.0	21.9	9.7	6.8
Sidamo	-	-	-	-
Tigrai	2.3	3.1	4.4	3.1
Wollega	15.7	21.5	28.0	19.8
Wollo	0.1	0.2	0.2	0.1
TOTAL	73.1	100.0	141.7	100.0