



**PROVISIONAL MILITARY GOVERNMENT  
OF SOCIALIST ETHIOPIA**

**MINISTRY OF AGRICULTURE**

**CROP PRODUCTION SURVEY**

**1978/79 (1971 E.C.)**

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## P R E F A C E

This is a consecutive report on crop production survey, i.e. on area under major crops, production and yield of these crops in 1978/79 (1971 E.C.). These types of reports have been published every year since 1974/75 (1967 E.C.) (see 1, 2, 4, 6).

The present report was prepared on the basis of the findings of the Crop Production Survey 1978/79 (1971 E.C.) conducted from the middle of March to the middle of May 1979.

The methodology applied for collecting these data is quite different from that used for the previous surveys. For this survey all the agriculturally important weredas were on complete enumeration basis and data were collected by interview method at wereda level. Nearly 400 weredas were covered out of 450 agriculturally important weredas in 12 regions excluding Eritrea and Tigray. Wereda officials were asked to assess the changes compared to last year for area under crop and production of major crops grown in the wereda for private peasant holdings. The data on area, production and yield for the state farms were compiled from the documents produced by the State Farm Development Authority.

The results of the survey are presented for national and regional level for 12 investigated regions as well as assessments for the whole country, all types of farms and both seasons. Comparison of sur-

vey findings in 1978/79 (1971 E.C.) is given with that of 1977/78 (1970 E.C.). This report comprises of three chapters and one annex. The first chapter deals with the area, production and yield of major crops obtained from 12 investigated regions and assessment for the country as a whole. Chapter II is devoted to comparison of crop production results for 1977/78 (1970 E.C.) and 1978/79 (1971 E.C.). In chapter III factors which caused changes in crop production compared to last year are discussed and presented. The results of the survey by region and crop are presented in Annex.

This report was written by Ato Ghebre-Selassie Mebrahtu, Head of the Agricultural Statistics Section, Planning and Programming Department, and Dr. Jan Kordos, FAO Statistician. The coordinator of the survey was Ato Alemu Kassa, Agricultural Statistics Section. The data were processed manually.

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

Teshome Teferi

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Addis Ababa, June 1979

## Chapter I

### AREA, PRODUCTION AND YIELD OF MAJOR CROPS

#### 1.1. Introduction

The data on area, production and yield of major crops were collected by interviewing wereda officials on changes in area and production in 1978/79 (1971 E.C.) compared to last year. The crop production survey was conducted in March-April 1979 and covered 391 weredas out of 450 weredas which are important crop growing areas excluding nomadic areas. These major crops include: teff, barley, wheat, maize, sorghum, millet, horse beans, chick peas, haricot beans, field peas, lentils, flax neug, vetch, oats, fenu greek, rape seed and sesame. The data for the state farms are collected from the head office of the State Farm Development Authority in Addis Ababa.

The data on area, production and yield of the major crops presented in this chapter are generalized for the whole country excluding regions which were not covered (i.e. Eritrea and Tigray). However, attempt has been made to assess the relevant data for the whole country, including Eritrea and Tigray. The method of this assessment is given in [ 3 ] .

Area (or production) under crop in question was calculated as follows:

$$Z_i(71) = Z_i(70) \times \bar{ZC}_i(71/70)$$

where  $Z_i(71)$  stands for area (or production) for the crop in question in the i-th region in 1971 E.C.;

$Z_i(70)$  - estimate of total area (or production) for the crop in question in the i-th region in 1970 E.C. (see [2] ),

$\bar{ZC}_i(71/70)$  - the mean change in area (or production) for the crop in question in the i-th region in 1971 E.C. compared to 1970 E.C.

The value  $\bar{ZC}_i(71/70)$  was estimated from the crop production survey.

The results of area, production and yield by region are given in Annex.

#### 1.2. Area, production and yield of major crops for private holdings (main season)

The survey covered 12 regions excluding Eritrea and Tigray. Area under crop in question and its production are estimated at regional level. The estimates of the total area under crop in question as well as its total production at national level are the sum of the area and production for all the regions respectively.

The estimate of the total area under major crops for the country (excluding Eritrea and Tigray) is approximately 4.90 million hectares. Area under teff is estimated to be 1.27 million hectares (25.6%) and its production is estimated to be 9.89 million quintals with mean yield of 7.8 quintals per hectare. The total area under barley is estimated to be 0.78 million hectares (16.0%) with total production of 5.80 million quintals and mean yield of 7.4 quintals per hectare. Whereas, the total area under wheat is estimated to be 0.45 million hectares (9.2%) with total production of 3.91 million quintals and mean yield of 8.7qt/ha.

The estimated area under maize is approximately 0.86 million hectares (17.6%) with total production of 8.42 million quintals. The area under sorghum is estimated to be 0.59 million hectares (12.1%) with total production of 5.46 million quintals and mean yield of 9.2 qt/ha.

The above mentioned five crops occupy approximately 81% of the total area under temporary crops with total production of 33.5 million quintals (83.7% of the total production of major crops). For details see table 4 .

1.3. Area, production and yield of major crops for state farms

The data on area, production and yield of major crops in state farms are compiled from the publications, and documents produced by the State Farm Development Authority. The major cereals and pulses grown in the state farms are: maize, wheat, sorghum, teff, haricot beans, millet, soya beans and sunflower.

The total area under the major crops mentioned above is approximately 34.2 thousand hectares with total production of 872.6 thousand quintals. Area under maize occupies 19.8 thousand hectares (57.9%) with total production of 595.1 thousand quintals and average yield of 30.0 qt/ha; while the area under wheat is 5.4 thousand hectares (15.8%) with total production of 107.8 thousand quintals and average yield of 20.0 qt/hac. For details see table 2.

1.4. Assesment of Area, production and yield of major crops in cooperatives.

✓ The area under major crops in cooperative farms is assessed at 46.0 thousand hectares. "Cooperative farms" are farms which are jointly operated by all members of a Peasant Association. The data on area, production and yield of

Table 1.

ESTIMATES OF AREA, PRODUCTION AND YIELD OF  
MAJOR CROPS IN 1978/79(1971 E.C) FOR  
PRIVATE HOLDINGS (Main Season)\*

Crop	Total Area		Production	Yield
	Thousand hectares	Per cent	Thousand quintals	Quintals Per ha
(1)	(2)	(3)	(4)	(5)
Teff	1269.2	25.9	9,887.4	7.8
Barley	782.5	16.0	5,796.5	7.4
Wheat	451.1	9.2	3,907.5	8.7
Maize	864.8	17.6	8,423.4	9.7
Sorghum	591.9	12.1	5,453.4	9.2
Millet	159.1	3.2	1,410.0	8.8
Horse beans	283.4	5.8	2,502.9	8.8
Chick peas	118.0	2.4	665.5	5.6
Haricot beans	19.3	0.4	127.7	6.6
Field peas	118.3	2.4	803.6	6.8
Lentils	53.5	1.1	225.1	4.2
Flax	25.5	0.5	91.8	3.6
Neug	108.6	2.2	321.5	3.0
Vetch	41.7	0.8	219.1	5.3
Oats	15.1	.3	136.8	9.1
Fenu greek	1.2	0.1	6.1	5.1
Rape seed	0.2	0.0	2.3	11.5
Sesame	0.5	0.0	1.6	3.4
TOTAL	4903.9	100.0	39,987.2	8.2

\*Excluding Eritrea and Tigrai.

Table 2

ESTIMATES OF AREA, PRODUCTION AND YIELD OF  
MAJOR CROPS IN 1978/79 (1971 E.C.) FOR  
STATE FARMS

Crop	Total Area		Production Thousand quintals	Yield Quintals Per ha
	Thousand hectares	Per cent		
(1)	(2)	(3)	(4)	(5)
Teff	1.7	5.0	17.3	10.2
Barley	1.0	2.9	18.0	18.0
Wheat	5.4	15.8	107.8	20.0
Maize	19.8	57.9	595.1	30.0
Sorghum	4.4	12.9	108.8	24.7
Millet	0.3	0.9	3.9	13.0
Haricot beans	0.2	0.6	3.3	16.5
Neug	0.1	0.3	0.6	5.9
Soya beans	0.5	1.4	6.2	12.0
Sun flower	0.8	2.3	12.0	15.0
TOTAL	34.2	100.0	872.6	25.5

major crops for cooperative farms were assessed using indirect approaches based on the previous surveys conducted (see [ 2 ] ). The main crops produced by the cooperative farms are: teff (55.9%) neug (15.7%), sorghum (5.9%), wheat (5.9%), barley (4.1%), maize (3.5%), millet (3.0%) For details see table 3.

1.5. Assesment of Area, production and yield of major crops in private holdings (Belg season)

"Belg" season or small rainy season normally occurs from February to May. Short maturing crops are planted during this period and harvested in June or July. In the lowland, however, long maturing crops such as maize and sorghum are planted as early as January or February and harvested in June or July.

The main belg crop growing areas of Ethiopia are: Wello, North and Central Shoa, Arssi, Sidamo and Bale.

Barley, wheat, beans and teff are the major belg season crops grown in the highlands; while maize and sorghum are the major belg season crops grown in the lowlands.

The total area under the major crops for the belg season is assessed at 198.5 thousand hectares comprising 3.7% of the area under major crops with total production of approximately 1,620.8 thousand quintals (3.7%). Barley occupies nearly 4.8% of the total area under belg crops, followed by maize (29.3%) wheat (10.5%) horse beans (1.7%), teff (1.3%), chick peas (1.1%). For details refer to table 4.

Table 3

ESTIMATES OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS IN 1978/79 (1971 E.C) FOR COOPERATIVE FARMS

Crop	Total Area		Production	Yield
	Thousand hectares	Per cent	Thousand quintals	Quintals per ha
(1)	(2)	(3)	(4)	(5)
Teff	25.7	55.9	200.5	7.8
Barley	1.9	4.1	14.1	7.4
Wheat	2.7	5.9	23.5	8.7
Maize	1.6	3.5	15.5	9.7
Sorghum	2.7	5.9	24.8	9.2
Millet	1.4	3.0	12.3	8.8
Horse beans	0.2	0.4	1.8	8.8
Chick peas	1.1	2.4	6.2	5.6
Haricot beans	0.1	0.2	0.7	6.6
Field peas	1.3	2.8	8.8	6.8
Lentils	0.1	0.2	0.4	4.2
Neug	7.2	15.7	21.6	3.0
TOTAL	46.0	100.0	330.2	7.2

Table 4

ESTIMATES OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS IN 1978/79 (1971 E.C.) FOR PRIVATE HOLDINGS (Belg Season)

Crop	Total Area		Production	Yield
	Thousand hectares	Per cent	Thousand quintals	Quintals per ha
(1)	(2)	(3)	(4)	(5)
Teff	2.5	1.3	19.5	7.8
Barley	108.8	54.8	805.1	7.4
Wheat	20.9	10.5	173.5	8.3
Maize	58.2	29.3	564.5	9.7
Sorghum	0.6	0.3	5.6	9.3
Horse beans	3.4	1.7	29.9	8.8
Chick peas	2.2	1.1	11.9	5.4
Haricot beans	0.1	0.1	0.7	6.5
Field peas	0.4	0.2	2.7	6.8
Lentils	0.4	0.2	1.8	4.6
Vetch	1.0	0.5	5.6	5.6
TOTAL	198.5	100.0	1620.8	8.2

1.6. Assessment of area, production and yield of major crops for the whole country (all seasons and all types of holdings)

The crop production survey covered 12 regions only. Eritrea and Tigrai were not covered. Very often users are interested in having estimates for the whole country, including all regions, and all types of farms and all seasons. Therefore, we have to look for some methods to assess the area, production and yield of major crops for these regions which were not covered, i.e. for Eritrea and Tigrai. The methodology for assessing area, production and yield of major crops for Eritrea and Tigrai are described in the forthcoming publication (see [3]).

The assessment of area, production and yield for private holdings for the whole country during the main season is given in table 5. The results for state farms, cooperatives and for belg season for private holdings are given in tables 2, 3 and 4 respectively. The total area, production and yield of major crops for the whole country, for all types of farms and for both seasons are presented in table 6 (area under belg crop is not added).

The total area under major crops is assessed to be 5.49 million hectares, out of which 1.39 million hectares is under teff (25.3%), 0.84 million hectares under barley (15.2%), 0.51 million hectares under wheat (9.3%), 0.91 million hectares under maize (16.6%) and 0.73 million hectares under sorghum (13.2%).

Table 5

ESTIMATES OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS IN 1978/79 (1971 E.C.) FOR PRIVATE HOLDINGS FOR THE WHOLE COUNTRY (Main Season)

Crop	Total Area		Production	Yield
	Thousand hectares	Per cent	Thousand quintals	Quintals per ha
(1)	(2)	(3)	(4)	(5)
Teff	1365.2	25.2	10,600.7	7.8
Barley	833.9	15.4	6,130.5	7.4
Wheat	503.2	9.3	4,183.1	8.3
Maize	888.7	16.4	8,641.2	9.7
Sorghum	719.3	13.3	6,659.7	9.3
Millet	236.6	4.4	1,879.6	7.9
Horse beans	295.7	5.4	2,619.1	8.8
Chick peas	140.5	2.6	753.8	5.4
Haricot beans	49.7	0.4	128.9	6.5
Field peas	126.0	2.3	862.6	6.8
Lentils	58.4	1.1	266.9	4.6
Flax	37.9	0.7	135.7	3.6
Neug	113.9	2.1	331.2	2.9
Vetch	57.5	1.1	299.5	5.2
Oats	15.1	0.3	136.8	9.1
Fenu greek	1.2	0.0	6.1	5.1
Rape seed	0.2	0.0	2.3	11.5
Sesame	0.5	0.0	1.6	3.4
TOTAL	5,413.5	100.0	43,639.3	8.1

Table 6

ESTIMATES OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS IN 1978/79 (1971 E.C) FOR THE WHOLE COUNTRY

Crop	Total Area		Production Thousand quintals	Yield quintals per ha
	Thousand hectares	Per cent		
(1)	(2)	(3)	(4)	(5)
Teff	1392.6	25.3	10,838.0	7.8
Barley	836.8	15.2	6,967.7	8.3
Wheat	511.3	9.3	4,487.9	8.8
Maize	910.1	16.6	9,816.3	10.8
Sorghum	726.4	13.2	6,798.9	9.4
Millet	238.3	4.3	1,895.8	8.0
Horse beans	295.9	5.4	2,650.8	9.0
Chick peas	141.6	2.6	771.9	5.5
Haricot beans	20.0	0.4	133.6	6.7
Field peas	127.3	2.3	874.1	6.9
Lentils	58.5	1.1	269.1	4.6
Flax	37.9	0.7	135.7	3.6
Neug	121.2	2.2	353.4	2.9
Vetch	57.5	1.1	305.1	5.3
Oats	15.1	0.3	136.8	9.1
Fenu greek	1.2	0.0	6.1	5.1
Rape seed	0.	0.0	2.3	11.5
Sesame	0.5	0.0	1.6	3.4
TOTAL	5,492.4	100.0	46,445.1	8.5

The total production of major crops is assessed to be 46.4 million quintals; out of which 43.7 million quintals (94.0%) is produced by private peasant holdings in the main season and 1.6 million quintals (3.5%) in the belg season. Therefore, 97.5% of the total production of major crops is produced by the peasant holdings. The remaining 2.5% of the total production of the major crops is produced by the Government farms.

## Chapter II

### COMPARISON OF AREA, PRODUCTION AND YIELD OF MAJOR CROPS IN 1977/78 (1970 E.C.) AND 1978/79 (1971 E.C.)

#### 2.1. Introduction

Users of crop production results are usually interested in comparison of the area under different crops, production and yield of these crops in consecutive years. It is very important to know whether area under crop in question, production and yield of this crop increased or decreased compared to last year.

This year nearly all agriculturally important weredas were covered, and interview was conducted at wereda level. It means that changes in area and production observed are not subject to sampling errors. However, one may observe biases connected with interview method.

Crop production results for 1978/79 (1971 E.C.) presented in chapter I of this report may be compared with relevant crop production results for 1977/78 (1970 E.C.) /see [2] /. Comparison will be done as follows. In separate tables the following will be presented: estimates of the relevant parameter in year 1977/78 (1970 E.C.) /in column 2 / and in 1978/79 (1971 E.C.) /column 3/, the difference between these estimates /column 4/, and percentages of this difference /column 5/.

Comparison of area, production and yield of major crops will be done for 12 investigated regions (excluding Eritrea and Tigrai) of private peasant holdings for main season, and for

the whole country, including all regions, all types of farms and both seasons. The annex contains comparison by region for private peasant holdings (excluding Eritrea and Tigrai).

2.2. Comparison of area, production and yield of major crops in 12 regions for private holdings (main season)

Comparison of area, production and yield of major crops in 12 investigated regions (excluding Eritrea and Tigrai) for private peasant holdings are given in tables 7, 8 and 9 respectively.

As one can see from table 7, total area under major crops increased significantly (4.0%) compared to last year. The highest increase is observed for maize (7.4%), following by teff (6.9%), barley (6.0%), wheat (3.8%), horse beans (5.2%), and field peas (4.3%). Total area under cereals increased by 4.4%, and under pulses by 3.2%.

Decrease of area is observed only for sorghum (4.5%), millet (1.5%), haricot beans (4.9%), lentils (0.9%), and neug (1.0%).

Production changed variously for particular crops. The highest increase in production is observed for teff (6.1%), following by wheat (5.9%) and maize (5.9%). Production of barley is the same as last year. Out of cereals production decreased for sorghum (4.4%) and for millet (10.3%). Production of pulses decreased by 9.0%, out of which the highest decrease is for chick peas (23.7%), following by lentils (21.1%), horse beans (6.1%), and haricot beans (5.5%).

Table 7

COMPARISON OF AREA UNDER MAJOR CROPS  
IN 1977/78 (1970 E.C.) AND 1978/79 (1971 E.C.)  
IN ETHIOPIA\* (Private holdings, main season)

Crop	Estimate in:		Change	
	1977/78 (1970 E.C.)	1978/79 (1971 E.C.)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS	3946.2	4118.6	172.4	4.4
Teff	1186.8	1269.2	82.4	6.9
Barley	738.2	782.5	44.3	6.0
Wheat	434.8	451.1	16.3	3.8
Maize	805.1	864.8	59.7	7.4
Sorghum	619.8	591.9	-27.9	-4.5
Millet	161.5	159.1	-2.4	-1.5
PULSES	573.9	592.5	18.6	3.2
Horse beans	269.3	283.4	14.1	5.2
Chick peas	116.9	118.0	1.1	0.9
Haricot beans	20.3	19.3	-1.0	-4.9
Field peas	113.4	118.3	4.9	4.3
Lentils	54.0	53.5	-0.5	-0.9
OTHERS	195.6	192.7	-2.9	-1.5
Neug	109.7	108.6	-1.1	-1.0
Flax (Linseed)	25.0	25.5	0.5	2.0
Vetch	40.9	41.7	0.8	2.0
Fenu greek	1.2	1.2	0.0	0.0
Rape seed	0.1	0.1	0.0	0.0
Oats	18.2	15.1	-3.1	-17.0
Sesame	0.5	0.5	0.0	0.0
TOTAL	4715.7	4903.3	188.1	4.0

\* Excluding Eritrea and Tigray

Table 8

COMPARISON OF PRODUCTION OF MAJOR CROPS  
IN 1977/78(1970E.C) AND 1978/79(1971 E.C.)  
IN ETHIOPIA\* (Private holdings, main season)

Crop	Estimate in:		Change	
	1977/78 (1970E.C.)	1978/79 (1971E.C.)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
Thousand quintals.			Per cent	
CEREALS	34039.9	34883.2	843.3	2.5
Teff	9317.7	9887.4	569.7	6.1
Barley	5795.7	5796.5	0.8	0.0
Wheat	3689.6	3907.5	217.9	5.9
Maize	7956.9	8423.4	466.5	5.9
Sorghum	5707.7	5458.4	-249.3	-4.4
Millet	1572.3	1410.0	-162.3	-10.3
PULSES	4755.1	4324.8	-430.3	-9.0
Horse beans	2664.9	2502.9	-162.0	-6.1
Chick peas	872.1	665.5	-206.6	-23.7
Haricot beans	135.2	127.7	-7.5	-5.5
Field peas	797.7	803.6	5.9	0.7
Lentils	285.2	225.1	-60.1	-21.1
OTHERS	831.4	779.2	-52.2	-6.3
Neug	348.4	321.5	-26.9	-7.7
Flax (Linseed)	105.3	91.8	-13.5	-12.8
Vetch	241.9	219.1	-22.8	-9.4
Fenu greek	6.1	6.1	0.0	0.0
Rape s.	2.3	2.3	0.0	0.0
Oats	125.6	136.8	11.2	8.9
Sesame	1.8	1.6	-0.2	-11.1
TOTAL	3962.4	39987.2	360.8	0.9

\* Excluding Eritrea and Tigray

Table 9

COMPARISON OF YIELD OF MAJOR CROPS  
IN 1977/78(1970 E.C.) AND 1978/79(1971E.C.)  
IN ETHIOPIA\* (Private holdings, main season)

Crop	Estimate in:		Changes	
	1977/78 (1970E.C.)	1978/79 (1971E.C.)	cl.3-cl.2	100 $\frac{cl.4}{cl.2}$
(1)	(2)	(3)	(4)	(5)
CEREALS	8.6	8.5	qt/ha - 0.1	Per cent - 1.8
Teff	7.9	7.8	- 0.1	- 0.8
Barley	7.8	7.4	- 0.4	- 5.6
Wheat	8.5	8.7	+ 0.2	2.1
Maize	9.9	9.7	- 0.2	- 1.4
Sorghum	9.2	9.2	0.0	0.1
Millet	9.7	8.8	- 0.9	- 9.3
PULSES	8.3	7.3	- 1.0	-11.9
Horse beans	9.9	8.8	- 1.1	-10.8
Chick peas	7.5	5.6	- 1.9	-24.4
Haricot beans	6.7	6.6	- 0.1	- 0.7
Field peas	7.0	6.8	- 0.2	- 3.4
Lentils	5.3	4.2	- 1.1	-20.3
OTHERS	4.2	4.0	- 0.2	- 4.9
Neug	3.2	3.0	- 0.2	- 6.8
Flax				
Linseed	4.2	3.6	- 0.6	-14.5
Vetch	5.9	5.3	- 0.6	-11.2
Fenu greek	5.1	5.1	0.0	0.0
Oats	6.9	9.1	- 2.2	+31.3
TOTAL	8.4	8.2	- 0.2	- 3.0

\* Excluding Eritrea and Tigray

Production of other crops decreased by 6.3%, out of which flax (linseed) is the highest (12.8%), following by vetea (9.4%), and neug (7.7%).

Total production of all major crop increased by 360.8 thousand quintals (0.9%) compared to last year. Reasons for crop production changes are given in the next chapter of this report.

### 2.3. Comparison of area, production and yield of major crops for the whole country

As has been already stressed, users of crop production results are usually interested in comparison of area under different crops, production and yield of these crops for the whole country, i.e. including all regions, all types of farms and both seasons. However, the survey covered only 12 regions, then the results for remaining two regions, i.e. for Eritrea and Tigray, were assessed using available indirect data. Method for assessment of crop production results for Eritrea and Tigray is given in [3].

We would like to add that there are some differences in assessment of area and production for major crops for the whole country for 1977/78 (1970 E.C.) (see [2]). These differences are connected with different method of assessment of crop production data for Eritrea and Tigray this year. We think that last assessment is better than for previous year.

Comparisons of area, production and yield of major crops for the whole country are given in tables 10, 11 and 12 respectively.

Total area under major crops increased by 205.2 thousand hectares, i.e. 3.9% of total area in 1977/78 (1970 E.C.).

Table 10

COMPARISON OF AREA UNDER MAJOR CROPS  
IN 1977/78 (1970 E.C.) AND 1978/79 (1971 E.C.)  
FOR THE WHOLE COUNTRY

Crop	Estimate in:		Change	
	1977/78 (1970 E.C.)	1978/79 (1971 E.C.)	e1.3-e1.2	100 $\frac{e1.4}{e1.2}$
(1)	(2)	(3)	(4)	(5)
CEREALS	4440.7	4615.5	174.8	3.9
	Thousand hectares			Per cent
Teff	1304.0	1392.6	88.6	6.8
Barley	797.8	836.8	39.0	4.9
Wheat	492.8	511.3	18.5	3.8
Maize	849.4	910.1	60.7	7.2
Sorghum	763.0	726.4	-36.6	-4.8
Millet	233.7	238.3	4.6	2.0
PULSES	622.8	643.3	20.5	3.3
Horse beans	281.8	295.9	14.1	5.0
Chick peas	138.3	141.6	3.3	2.4
Haricot beans	21.3	20.0	-1.3	-6.1
Field peas	122.2	127.3	5.1	4.2
Lentils	59.2	58.5	-0.7	-1.2
OTHERS	223.9	233.8	9.9	4.4
Neug	119.3	121.2	1.9	1.6
Flax (Linseed)	35.4	37.9	2.5	7.1
Vetch	49.3	57.5	8.2	16.6
Oats	18.2	15.5	-3.1	-17.0
Fenu greek	1.2	1.2	0.0	0.0
Sesame	0.5	0.5	0.0	0.0
TOTAL	5287.4	5492.6	205.2	3.9

Table 11

COMPARISON OF PRODUCTION OF MAJOR CROPS  
IN 1977/78(1970 E.C.) AND 1978/79(1971 E.C.)  
FOR THE WHOLE COUNTRY

Crop	Estimate in:		Changes	
	1977/78 (1970E.C.)	1978/79 (1971E.C.)	cl.3-cl.2	100 $\frac{cl.4}{cl.2}$
(1)	(2)	(3)	(4)	(5)
	Thousand quintals			Per cent
CEREALS	39866.3	40804.6	938.3	2.4
Teff	10223.8	10838.0	614.2	6.0
Barley	6899.4	6967.7	68.3	1.0
Wheat	4289.1	4487.9	198.8	4.6
Maize	9290.8	9816.3	525.5	5.7
Sorghum	7079.0	6798.9	-280.1	-4.0
Millet	2084.2	1895.8	-188.4	-9.0
PULSES	5142.8	4699.5	-443.3	-8.6
Horse beans	2817.7	2650.8	-166.9	-5.9
Chick peas	994.1	771.9	-222.2	-22.4
Haricot beans	148.0	133.6	- 14.4	-9.7
Field peas	853.4	874.1	20.7	2.4
Lentils	329.6	269.1	- 60.5	-18.4
OTHERS	986.2	938.7	- 47.5	- 4.8
Neug	383.0	353.4	- 29.6	- 7.7
Flax (Linseed)	147.5	135.7	- 11.8	- 3.7
Vetch	326.0	305.1	- 20.9	- 6.4
Oats	120.4	136.8	16.4	5.0
Fenu greek	6.1	6.1	0.0	0.0
Sesame	3.2	1.6	0	
TOTAL	45995.3	46442.8	447.5	1.0

Table 12

COMPARISON OF YIELD OF MAJOR CROPS  
IN 1977/78(1970 E.C.)AND 1978/79 (1971 E.C.)  
FOR THE WHOLE COUNTRY

Crop	Estimate in:		Change	
	1977/78 (1970E.C.)	1978/79 (1971 E.C.)	cl.3-cl.2	100 $\frac{cl.4}{cl.2}$
(1)	(2)	(3)	(4)	(5)
	quintals/hectares			Per cent
CEREALS	9.0	8.8	-0.2	-2.2
Teff	7.8	7.9	0.1	1.3
Barley	8.6	8.3	-0.3	-3.5
Wheat	8.7	8.8	0.1	1.1
Maize	10.9	10.8	-0.1	-0.9
Sorghum	9.3	9.4	0.1	1.1
Millet	8.9	8.0	-0.9	-10.1
PULSES	8.3	7.3	-1.0	-12.0
Horse beans	10.0	9.0	-1.0	-10.0
Chick peas	7.2	5.5	-1.7	-23.6
Haricot beans	6.9	6.7	-0.2	- 2.9
Field peas	7.0	6.9	-0.1	- 1.4
Lentils	5.6	4.6	-1.0	-17.9
OTHERS	4.4	4.0	-0.4	- 9.1
Neug	3.2	2.9	-0.3	- 9.4
Flax (Linseed)	4.2	3.6	-0.6	-14.3
Vetch	6.6	5.3	-1.3	-19.7
Oats	6.6	8.8	2.2	33.3
Fenu greek	5.1	5.1	0.0	0.0
Sesame	6.4	3.2	-3.2	-50.0
TOTAL	8.7	8.5	-0.2	- 2.3

The highest increase is observed for maize (7.2%), following by teff (6.8%), barley (4.9%), wheat (3.8%), and millet (2.0%). Out of cereals only area under sorghum decreased (4.8%). Area under pulses increased by 3.3%, out of which the highest increase is observed for horse beans (5.0%), following by field peas (4.4%) and chick peas (2.4%). Area decreased under haricot beans (6.1%) and lentils (1.2%).

Production of all major crops increased from 46.0 million quintals in 1970 E.C. to 46.4 million quintals in 1971 E.C., i.e. 1.0%. However, production of cereals increased by 2.4% (0.94 million quintals) out of which the highest increase is observed for teff (6.0%), following by maize (5.7%), wheat (4.6%) and barley (1.0%). High decrease in production is for millet (9.0%) and sorghum (4.0%). Total production of pulses decreased by 8.6%, and the highest is for chick peas (22.4%), following by lentils (18.4%), haricot beans (9.7%), and horse beans (5.9%). Decrease of production is also observed for neug (7.7%), flax (3.7%) and vetch (6.4%). For details see table 11. Reasons for these significant changes in crop production are given in next chapter.

Comparison of yield for different crops show the same tendency nearly for all crops, i.e. decrease of yield. There are only small decreases of yield for cereals, except millet (10.1%), however, for pulses decreases are rather high: 23.6% for chick peas, 17.9% for lentils, and 10.0% for horse beans. There is also decrease in yield for neug (9.4%), vetch (19.7%) and flax (14.3%). For details see table 12.

## Chapter III

### INFLUENCE OF DIFFERENT FACTORS ON CROP PRODUCTION

#### 3.1. Factors Influencing Crop Production

There are a number of factors that influence crop production. Crop production is influenced by meteorological and other events such as insect pest, plant diseases, exhaustion of the fertility of the soil, changes in type of land under crop, changes in the amount of fertilizers, and many other factors may also exert a major influence.

Generally, all factors that influence crop production are divided into two groups:

- i) factors decreasing crop production, and
- ii) factors increasing crop production.

We have distinguished the following factors that decreased crop production:

- 1) shortage of rain (drought),
- 2) too much rain,
- 3) insect peast, plant diseases,
- 4) hail, frost and flood,
- 5) wild animals,
- 6) exhaustion of the fertility of the soil,
- 7) shortage of seed,
- 8) bird damage,
- 9) lack of fertilizers,
- 10) decrease of land under crop,

Increase in crop production was caused by the following factors:

- a) better weather condition than last year,
- b) increase of land under crop
- c) use of fertilizers
- d) better management
- e) improved seeds
- f) better implements.

We would like to add that meteorological effects were often somewhat complex, and it was difficult to determine them clearly. Sometimes, several factors were reported simultaneously as the reasons for crop production change, but for processing the most important was accepted.

### 3.2. Assessment of crop production change by different factors

Total production of major crops is assessed to decrease by 4.61 million quintals, i.e. 11.7% of the last year's production. This crop production decrease was caused by:

- a) shortage of rain (1.88 million quintals)
- b) insect pest and plant diseases (0.91 million quintals)
- c) too much rain (0.67 million quintals)
- d) hail, frost and flood (0.56 million quintals)
- e) wild animals (0.10 million quintals) and other factors (0.49 million quintals)

All other factors which positively influenced crop production of major crops increased it by 4.96 million quintals, i.e. 12.6% of last year's production. This increase was caused by:

- 1) better weather conditions than last year (2.69 million quintals)
- 2) increased area under major crops (1.01 million quintals)

- 3) use of fertilizers (0.81 million quintals)
- 4) better management (0.13 million quintals) and other factors (0.32 million quintals).

It meant that total production of major crops increased only 0.35 million quintals, i.e. 0.9% of last year's production. For details see table 13.

### 3.3. Decrease of production by crop and reason

As may be seen from tables 14, 15 and 16, decrease of production of cereals is relatively smaller than production of pulses and other crops. Production of cereals decreased by 10.8% compared to last year's production of cereals, whereas production of pulses and other crops decreased by 18.1% and 12.6% respectively.

Production decrease by crop is given in table 17, and detailed results are presented at the end of the Annex.

All factors which influenced crop production negatively caused very high decrease of production for chick peas (26.7%), following by lentils (24.1%), field peas (18.5%), sorghum (16.5%), flax (16.0%) horse beans (15.0%), millet and barley (12.0%).

Too much rain decreased production significantly for flax (6.5%), horse beans (3.5%), wheat (3.2%), and field peas (2.9%).

Shortage of rain decreased production mainly for lentils (13.6%), sorghum (10.7%), chick peas (10.1%), millet (5.8%), and maize (5.2%).

Pest and plant diseases caused the highest decrease of production for chick peas (13.2%), following by field peas (8.1%), horse beans (7.1%), flax (5.5%), and neug (5.0%).

Hail, frost and flood destroyed mainly lentils (3.8%), horse beans (2.6%), flax (2.6%), barley (2.3%), and teff (2.0%).

Table 13

CHANGE OF TOTAL PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS \*

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		39486.6	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-4610.4	-11.7	100.0
		too much rain	- 670.7	- 1.7	14.6
		shortage of rain	-1879.2	- 4.7	40.8
		pest, plant diseases	- 913.6	- 2.3	19.8
		hail, frost and flood	- 561.3	- 1.4	12.2
		wild animals	- 98.7	- 0.3	2.1
	increased by:	All factors	4960.2	12.6	100.0
		better weather conditions	2692.7	6.8	54.3
		increased area	1009.0	2.6	20.3
		use of fertilizers	809.5	2.1	16.3
		better management	132.2	0.3	2.7
	Total change		349.8	0.9	

\* Excluding Eritrea and Tigrai .

Table 14

CHANGE OF CEREALS PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS\*

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		34039.9	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-3661.1	-10.8	100.0
		too much rain	- 523.5	- 1.5	14.3
		shortage of rain	-1646.9	- 4.8	45.0
		pest, plant diseases	- 504.9	- 1.5	13.8
		hail, frost and flood	- 458.8	- 1.3	12.5
		wild animals	- 94.4	- 0.3	2.6
	increased by:	All factors	4504.4	13.3	100.0
		better weather conditions	2431.7	7.1	54.0
		increased area	946.3	2.8	21.0
		use of fertilizers	788.0	2.3	17.5
		better management	127.5	0.4	2.8
	Total change		843.3	2.5	

\*Excluding Eritrea and Tigray.

Table 15

CHANGE OF PULSES PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS\*

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		4755.1	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-860.9	-18.1	100.0
		too much rain	-131.3	-2.8	15.3
		shortage of rain	-204.6	-4.3	23.8
		pest, plant diseases	-379.9	-8.0	44.1
		hail, frost and flood	-93.7	-2.0	10.9
		wild animals	-1.2	-0.0	0.1
		All factors	430.6	9.1	100.0
	increased by:	better weather conditions	240.0	5.0	55.7
		increased area	58.8	1.2	13.7
		use of fertilizers	21.2	0.4	4.9
		better management	4.7	0.1	1.1
	Total change		-430.3	-9.0	

\*Excluding Eritrea and Tigray.

Table 16

CHANGE OF OTHERS PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS\*

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		691.6	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-88.4	-12.7	100.0
		too much rain	-15.9	- 2.3	18.0
		shortage of rain	-27.7	- 4.0	31.3
		pest, plant diseases	-28.8	- 4.2	32.6
		hail, frost and flood	- 8.8	- 1.3	10.0
		wild animals	- 3.1	- 0.5	3.5
	increased by:	All factors	25.2	3.6	100.0
		better weather conditions	21.0	3.0	83.3
		increased area	3.9	0.6	15.5
		use of fertilizers	0.3	0.0	1.1
		better management	0.0	0.0	0.0
	Total change		-63.2	-9.1	

\*Excluding Eritrea and Tigray.

Wild animals caused small decrease of maize (0.7%) and neug (0.9%).

Influence of other factors was not significant.

#### 3.4. Increase of production by crop and reason

Results of production increase of cereals, pulses and other crops are given in tables 14, 15 and 16 respectively. Production of cereals increased by 13.3% and this was caused mainly by better weather conditions than last year (7.1%), increased area (2.8%), and use of fertilizers (2.3%). Production of pulses increased by 9.1%, and for this increase were responsible mainly better weather conditions than last year (5.0%), and increased area (1.2%).

Assessment of influence different factors on crop production increase is given in table 18. Detailed results are given at the end of the Annex (see tables 4.1-4.14).

As one may see from table 18, better weather condition than last year was the most important factor which increased crop production significantly. The highest increase was observed for teff (9.0%), following by maize (8.7%), sorghum (7.1%), horse beans (7.0%), and wheat (6.0%).

The second factor which increased crop production is increased area under different crops. This factor increased production of teff (4.4%), barley (3.9%), maize (3.3%), sorghum (2.6%), wheat (2.0%), field peas (3.1%), and flax (1.8%).

Use of fertilizers increased total production by 2.3% (0.8 million quintals), but the highest increase was for wheat (6.2%), following by maize (2.5%), barley (2.4%), and teff (2.1%).

Other factors had no significant influence on crop production increase.

Table 17

PERCENTAGES OF PRODUCTION DECREASES  
IN 1978/79 (1971 E.C.) COMPARED TO  
LAST YEAR BY CROPS AND REASONS

Crop	Production decreased by:					
	All factors	Too much rain	Shortage of rain	Pest, plant disease	Hail, frost flood	Wild animals
Percentage of last year's production						
CEREALS	10.8	1.5	4.8	1.5	1.3	0.3
Teff	7.7	1.6	2.3	1.1	2.0	0.1
Barley	12.0	2.4	3.7	2.1	2.3	0.3
Wheat	9.9	3.2	2.8	2.6	1.0	0.0
Maize	9.5	0.9	5.2	0.9	1.0	0.7
Sorghum	16.5	0.5	10.7	1.1	0.3	0.2
Millet	12.3	1.4	5.8	3.5	0.3	0.2
PULSES	18.1	2.8	4.3	8.0	2.0	0.0
Horse beans	15.0	3.5	1.5	7.1	2.6	0.0
Chick peas	26.7	0.9	10.1	13.2	0.5	-
Haricot beans	9.7	0.2	3.1	2.5	0.2	0.2
Field peas	18.5	2.9	4.4	8.1	1.1	0.1
Lentils	24.1	2.5	13.6	3.2	3.8	-
OTHERS	12.7	2.3	4.0	4.2	1.3	0.5
Neug	11.6	1.6	1.8	5.0	1.8	0.9
Flax	16.0	6.5	-	5.5	2.6	-
Veteh	13.1	1.4	9.1	2.5	-	-
TOTAL	11.7	1.7	4.7	2.3	1.4	0.3

Table 18

PERCENTAGES OF PRODUCTION INCREASES  
IN 1978/79 (1971 E.C.) COMPARED TO  
LAST YEAR BY CROPS AND REASONS

Crop	Production increased by:				
	All factors	Better weather condit.	Increased area	Use of fertilizers	Better management
Percentage of last year's production					
CEREALS	13.3	7.1	2.8	2.3	0.4
Teff	13.8	9.0	4.4	2.1	0.0
Barley	12.0	4.4	3.9	2.4	1.0
Wheat	15.8	6.0	2.0	6.2	1.2
Maize	15.4	8.7	3.3	2.5	0.2
Sorghum	12.1	7.1	2.6	0.5	0.2
Millet	2.0	1.6	0.3	0.0	0.0
PULSES	9.1	5.0	1.2	0.4	0.1
Horse beans	8.9	7.0	1.0	0.6	0.2
Chick peas	3.0	2.1	0.6	0.0	0.0
Haricot beans	4.2	3.0	0.5	0.0	-
Field peas	19.2	3.4	3.1	0.6	0.0
Lentils	3.0	1.5	0.5	0.5	0.0
OTHERS	3.6	3.0	0.6	0.0	0.0
Neug	3.9	3.6	0.3	0.1	0.0
Flax	3.2	1.5	1.8	-	-
Vetch	3.5	3.0	0.5	-	-
TOTAL	12.6	6.8	2.6	2.1	0.3

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A N N E X

THE SURVEY RESULTS BY REGION AND CROP

1. Arssi.
2. Bale.
3. Gamo Gofa.
4. Gojam.
5. Gondar.
6. Hararge.
7. Illubabor.
8. Kefa.
9. Shoa.
10. Sidamo.
11. Wollega.
12. Wollo.

Table 1.1

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970 E.C) AND 1978/79(1971 E.C.) IN ARSSI REGION

Crop	Estimate in:		Change	
	1977/78 (1970 E.C)	1978/79 (1971 E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS	399.4	425.3	25.9	6.5
Teff	25.2	29.0	3.9	15.4
Barley	154.7	164.2	9.6	6.2
Wheat	153.8	163.3	9.5	6.2
Maize	41.9	43.9	2.0	4.7
Sorghum	23.8	24.9	1.1	4.6
Millet				
PULSES	60.8	65.7	4.9	8.1
Horse beans	37.3	41.0	3.6	9.8
Chick peas	1.0	1.1	0.1	10.0
Haricot beans	1.2	1.3	0.1	10.0
Field peas	15.8	16.9	1.1	7.1
Lentils	5.5	5.4	-0.1	-4.2
OTHERS	6.2	5.9	-0.3	-4.8
Neug	0.2	0.3	0.1	35.0
Flax (Linseed)	3.8	3.4	-0.3	-8.3
Vetch	1.0	1.0	0.0	0.0
Fenu greek	1.2	1.2		
TOTAL	466.4	496.9	30.5	6.6

Table 1.2

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970 E.C) AND 1978/79(1971 E.C) IN BALE REGION

Crop	Estimate in:		Change	
	1977/78 (1970 E.C)	1978/79 (1971 E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS <sup>8</sup>	96.1	123.3	27.2	28.3
Teff	5.5	8.2	2.7	48.3
Barley	61.7	78.0	16.3	26.4
Wheat	25.6	34.0	8.4	32.6
Maize	0.9	1.2	0.3	36.9
Sorghum	1.4	1.1	-0.3	-20.0
Millet	1.0	0.8	-0.2	-20.0
PULSES	13.4	16.5	3.1	23.1
Horse beans	2.1	2.5	0.4	18.6
Chick peas	0.1	0.1	0.0	22.3
Haricot beans				
Field peas	10.4	13.3	2.9	27.5
Lentils	0.8	0.6	-0.2	-30.0
OTHERS	2.2	2.8	0.6	27.3
Neug				
Flax (Linseed)	2.2	2.8	0.6	28.3
Vetch				
TOTAL	111.7	142.6	30.9	27.7

Table 1.3

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970 E.C) AND 1978/79(1971 E.C) In GAMOGOFFA  
REGION

Crop	Estimate in:		Change	
	1977/78 (1970 E.C)	1978/79 (1971 E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS	81.5	86.7	5.2	6.4
Teff	13.0	14.6	1.6	12.1
Barley	30.5	32.4	1.9	6.1
Wheat	1.5	1.5	0.0	0.7
Maize	27.4	29.3	1.9	6.8
Sorghum	6.7	6.5	-0.1	-1.8
Millet	2.4	2.4	0.0	0.0
PULSES	7.3	7.4	-0.1	-2.4
Horse beans	1.5	1.5	-0.0	-0.9
Chick peas	2.3	2.5	0.2	8.0
Haricot beans	0.9	0.9	-0.0	0.0
Field peas	2.5	2.4	-0.1	-5.0
Lentils	0.1	0.1		
OTHERS				
Neug				
Flax (Linseed)				
Vetch				
TOTAL	88.8	94.1	5.3	6.0

Table 1.4

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970 E.C) AND 1978/79(1971 E.C) In Gojjam REGION

Crop	Estimate in:			Change
	1977/78 (1970 E.C)	1978/79 (1971 E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS	474.3	456.2	-18.1	-3.8
Teff	254.2	243.3	-10.9	-4.3
Barley	89.0	86.2	-2.8	-3.2
Wheat	28.3	27.8	-0.5	-1.8
Maize	47.1	48.0	0.9	2.0
Sorghum	9.2	9.0	-0.2	-2.2
Millet	46.5	41.9	-4.7	-10.0
PULSES	52.9	51.7	-1.2	-2.3
Horse beans	29.8	29.2	-0.6	-1.9
Chick peas	5.8	6.0	0.2	3.8
Haricot beans				
Field peas	16.3	15.5	-0.8	-4.7
Lentils	1.0	1.0		
OTHERS	56.1	54.1	-2.0	-3.6
Neug	40.3	38.4	-1.9	-4.6
Flax (Linseed)	10.5	10.1	-0.4	-4.0
Vetch	5.2	5.5	0.3	6.3
seed	0.1	0.1		
TOTAL	583.3	562.0	-21.3	-3.7

Table 1.5

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970 E.C) AND 1978/79(1971 E.C) IN GONDAR REGION

Crop	Estimate in:			Change
	1977/78 (1970 E.C)	1978/79 (1971 E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS	479.3	490.9	11.6	2.4
Teff	201.3	205.9	4.6	2.3
Barley	119.7	120.9	1.2	1.0
Wheat	26.0	26.3	0.3	1.3
Maize	26.5	27.6	1.1	4.2
Sorghum	54.0	57.1	3.1	5.8
Millet	51.8	53.1	1.3	2.5
PULSES	133.7	137.0	3.3	2.5
Horse beans	54.6	57.2	2.6	4.7
Chick peas	53.4	52.8	-0.6	-1.2
Haricot beans	0.5	0.5	0	0
Field peas	15.3	16.4	1.1	7.2
Lentils	9.9	10.1	0.2	1.8
OTHERS	60.3	60.3	0	0
Neug	39.9	39.9	0	0
Flax (Linseed)	2.1	2.1	0	0
Vetch	18.3	18.3	0	0
TOTAL	673.3	688.2	14.9	2.2

Table 1.6

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970 E.C) AND 1978/79(1971 E.C) IN HARARGE REGION

Crop	Estimate in:			Change
	1977/78 (1970 E.C)	1978/79 (1971 E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS	227.6	212.5	-15.1	-6.6
Teff	2.7	2.6	- 0.1	-2.5
Barley	1.7	1.6	- 0.1	-6.3
Wheat	6.9	5.8	- 1.1	-16.1
Maize	41.1	39.6	- 1.5	-3.7
Sorghum	174.5	162.1	-12.4	-7.1
Millet	0.7	0.8	0.1	7.0
PULSES	4.1	3.3	- 0.8	-19.5
Horse beans	2.9	2.4	- 0.5	-17.5
Chick peas	0.2	0.1	- 0.1	-50.0
Haricot beans	0.3	0.3	0.0	6.0
Field peas	0.3	0.2	- 0.1	-35.0
Lentils	0.4	0.3	- 0.1	-11.7
OTHERS				
Neug				
Flax (Linseed)				
Vetch				
TOTAL	231.7	215.8	-15.9	- 6.9

Table 1.7

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970 E.C) AND 1978/79(1971 E.C) IN ILLUBABOR REGION

Crop	Estimate in:			Change
	1977/78 (1970 E.C)	1978/79 (1971 E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	Thousand hectares			Per cent
CEREALS	127.3	139.9	12.6	9.9
Teff	45.4	47.4	2.0	4.5
Barley	3.3	3.5	0.2	4.9
Wheat	2.1	1.8	-0.3	-12.1
Maize	55.2	63.5	8.3	15.0
Sorghum	15.7	17.5	1.8	11.2
Millet	5.6	6.2	0.6	10.7
PULSES	8.2	9.1	0.9	11.0
Horse beans	1.8	1.9	0.1	4.4
Chick peas	1.8	2.0	0.2	10.0
Haricot beans	0.3	0.4	0.1	14.0
Field peas	4.3	4.8	0.5	10.4
Lentils				
OTHERS	1.3	1.3	0.0	0.0
Neug	1.3	1.3	0.0	0.0
Flax Linseed				
Vetch				
TOTAL	135.5	149.0	13.5	10.0

Table 1.8

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN KEFFA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	Thousand hectares			Per cent
CEREALS	312.8	357.9	45.1	14.4
Teff	104.8	116.9	12.1	11.6
Barley	21.0	23.2	2.2	10.7
Wheat	7.0	7.6	0.6	8.8
Maize	144.9	171.3	26.4	18.2
Sorghum	28.0	31.4	3.4	12.1
Millet	7.1	7.5	0.4	6.0
PULSES	15.4	17.0	0.6	3.7
Horse beans	7.5	7.8	0.3	4.7
Chick peas				
Haricot beans				
Field peas	8.9	9.2	0.3	3.2
Lentils				
OTHERS	1.2	1.2	0.0	0.0
Neug	1.2	1.2	0.0	0.0
Flax (Linseed)				
Vetch				
Total	330.4	376.1	45.7	13.8

Table 1.9

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN SHOA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	Thousand hectares			Per cent
CEREALS	999.6	1041.3	42.3	+ 4.2
Teff	306.5	345.7	39.2	+12.8
Barley	191.5	199.9	8.4	+ 4.4
Wheat	160.1	160.3	0.2	+ 0.1
Maize	188.3	195.6	7.3	+ 3.9
Sorghum	149.8	137.2	-12.6	- 8.4
Millet	3.4	3.2	- 0.2	- 6.9
PULSES	216.5	222.3	5.8	+ 2.7
Horse beans	100.3	106.1	+ 5.8	5.8
Chick peas	44.7	45.7	+ 1.0	2.2
Haricot beans	12.3	11.3	- 1.0	- 8.0
Field peas	29.1	29.5	- 0.4	+ 1.3
Lentils	30.1	29.7	- 0.4	- 1.2
OTHERS	38.2	36.7	- 1.5	- 3.2
Neug	3.5	3.6	+0.1	0.6
Flax (Linseed)	5.3	5.9	+ 0.6	+10.5
Vetch	12.2	13.0	+ 0.8	+ 6.4
Oats	17.2	14.2	- 3.0	-17.5
TOTAL	1254.3	1300.9	46.6	+ 3.7

Table 1.10

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN SIDAMO REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS	146.2	165.2	19.0	13.0
Teff	11.4	13.3	1.9	16.6
Barley	46.8	54.5	7.7	16.5
Wheat	0.5	0.5	0.0	6.5
Maize	85.1	94.5	9.4	11.0
Sorghum	2.4	2.4	0.0	0.3
Millet				
PULSES	10.1	10.6	0.5	5.0
Horse beans	3.2	3.4	0.2	6.8
Chick peas	3.2	3.5	0.3	9.4
Haricot beans	2.4	2.3	- 0.1	-4.0
Field peas	1.3	1.4	0.1	7.9
Lentils				
OTHERS				
Neug				
Flax (Linseed)				
Vetch				
TOTAL	156.3	175.8	19.5	12.5

Table 1.11

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN WOLLEGA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares			Per cent
CEREALS	431.9	460.5	28.6	6.6
Teff	158.6	177.6	19.0	12.0
Barley	13.9	14.4	0.5	3.9
Wheat	2.4	2.3	- 0.1	- 2.9
Maize	139.5	143.5	4.0	2.9
Sorghum	74.8	79.7	4.9	6.5
Millet	42.7	42.9	0.2	0.4
PULSES	14.8	13.9	-0.9	-6.1
Horse beans	5.9	5.5	-0.4	-7.3
Chick peas	0.5	0.5	0.0	0.3
Haricot beans	2.4	2.3	-0.1	4.2
Field peas	3.5	3.3	0.2	- 5.7
Lentils	2.5	2.3	-0.2	- 8.0
OTHERS	23.0	24.0	0.6	2.6
Neug	23.0	23.6	0.6	2.8
Flax (Linseed)	0.3	0.3	0.0	0.0
Vetch				
Sesame	0.2	0.2	0.0	0.0
TOTAL	479.2	498.5	28.3	6.0

Table 1.1

COMPARISON OF AREA UNDER MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN WOLLO REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand hectares		Per cent	
CEREALS	170.2	158.4	-11.8	- 6.9
Teff	58.2	64.7	6.5	11.1
Barley	4.4	3.7	- 0.7	-14.8
Wheat	20.6	19.9	- 0.7	- 3.3
Maize	7.2	6.8	- 0.4	- 5.7
Sorghum	79.5	63.0	-16.5	-20.8
Millet	0.3	0.3	0.0	0.0
PULSES	35.7	38.0	2.3	6.4
Horse beans	22.4	24.9	2.5	11.3
Chick peas	3.9	3.7	- 0.2	- 4.1
Haricot beans				
Field peas	5.7	5.4	- 0.3	- 5.5
Lentils	3.7	4.0	0.3	7.9
OTHERS	6.6	6.3	- 0.3	- 4.6
Neug	0.3	0.3	0.03	10.0
Flax (Linseed)	0.8	0.9	0.1	12.5
Vetch	4.2	3.9	- 0.3	- 7.1
Oats	1.0	0.9	- 0.1	- 7.5
Sesame	0.3	0.3	0	0
TOTAL	202.5	192.7	- 9.8	- 4.6

Table 2.1

COMPARISON OF PRODUCTION MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN ARSSI REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	5024.1	5177.4	153.3	3.1
Teff	332.4	328.4	- 4.0	-1.2
Barley	1748.2	1788.4	40.2	2.3
Wheat	1910.7	2033.0	122.3	6.4
Maize	660.0	651.4	- 8.6	-1.3
Sorghum	372.8	376.2	3.4	0.9
Millet				
PULSES	592.1	554.6	-37.5	-6.3
Horse beans	460.6	436.2	-24.4	-5.3
Chick peas	10.5	7.9	- 2.6	-25
Haricot beans	4.8	5.3	0.5	10
Field peas	97.68	88.6	-9.0	-9.2
Lentils	18.6	16.6	-2.0	-10.6
OTHERS	43.8	38.3	-5.5	-12.6
Neug	1.0	0.9	-0.1	-11.5
Flax (Linseed)	32.7	27.3	-5.4	-16.4
Vetch	4.0	4.0	0.0	0.0
Fenu greek	6.1	6.1	0.0	0.0
TOTAL	5660.0	5770.3	110.3	2.0

Table 2.2

COMPARISON OF PRODUCTION MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN BALE REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	Thousand quintals			Per cent
CEREALS	1219.4	1572.6	353.2	29.0
Teff	36.1	53.3	17.2	47.5
Barley	845.0	1049.5	204.5	24.2
Wheat	282.3	408.2	125.9	44.6
Maize	37.5	47.1	9.6	25.6
Sorghum	12.2	9.5	- 2.7	-22.1
Millet	6.3	5.0	- 1.3	20.6
PULSES	114.7	141.3	26.6	23.2
Horse beans	25.0	31.4	6.4	25.7
Chick peas	0.5	0.8	0.3	50.0
Haricot beans				
Field peas	80.6	99.2	18.6	23.1
Lentils	8.6	9.9	1.3	15.1
OTHERS	12.9	15.2	2.3	17.8
Neug				
Flax (Linseed)	12.9	15.2	2.3	17.5
Vetch				
TOTAL	1347.0	1729.1	382.1	28.4

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Table 2.3

COMPARISON OF PRODUCTION MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN GAMOGOFA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	419.4	398.3	- 21.1	- 5.0
Teff	57.4	62.7	5.3	9.2
Barley	72.6	72.8	0.2	0.3
Wheat	3.9	3.9	- 0.0	- 0.7
Maize	229.1	209.2	-19.9	- 8.7
Sorghum	42.0	36.5	- 5.5	-13.1
Millet	14.4	13.2	- 1.2	- 8.3
PULSES	19.5	16.9	- 2.6	-13.3
Horse beans	4.0	3.7	- 0.3	- 7.5
Chick peas	7.1	5.6	+ 0.4	+ 5.6
Haricot beans	3.6	3.3	- 0.3	- 8.3
Field peas	4.7	4.2	- 0.6	-11.8
Lentils	0.1	0.1	=	=
OTHERS				
Neug				
Flax (Linseed)				
Vetch				
TOTAL	438.9	415.2	-23.7	-5.4

Table 2.4

COMPARISON OF PRODUCTION OF MAJOR CROPS IN  
1977/78(1970E.C)AND 1978/79(1971E.C) IN  
GOJAM REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	3629.0	3204.2	-424.8	-11.7
Teff	1999.5	1809.6	-190.0	- 9.5
Barley	454.2	372.4	- 81.8	-18.0
Wheat	224.5	199.6	- 24.9	-11.1
Maize	359.8	323.8	- 36.0	-10.0
Sorghum	88.2	58.8	- 29.4	-33.3
Millet	502.8	440.0	- 62.9	-12.5
PULSES	375.9	332.2	- 43.7	-11.6
Horse beans	273.4	237.0	- 36.4	-13.3
Chick peas	20.7	18.1	- 2.6	-12.5
Haricot beans				
Field peas	70.0	70.0	=	=
Lentils	11.8	7.1	- 4.7	-40
OTHERS	167.5	148.1	-19.4	-11.6
Neug	111.6	92.6	-19.0	-17.0
Flax (Linseed)	28.5	25.3	- 3.2	-11.1
Vetch	25.1	27.9	2.8	11.3
Rape seed	2.3	2.3	=	=
TOTAL	4172.4	3684.5	-487.9	-11.7

Table 2.5

COMPARISON OF PRODUCTION OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN GONDAR REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	Thousand quintals			Per cent
CEREALS	4569.0	4464.8	-104.2	- 2.3
Teff	1929.7	2059.0	129.3	6.7
Barley	1094.7	909.7	-185.0	-16.9
Wheat	125.7	111.2	- 14.5	-11.5
Maize	183.7	186.1	2.4	1.3
Sorghum	546.7	601.9	55.2	10.1
Millet	688.5	596.9	- 91.6	-13.3
PULSES	1310.8	958.2	-352.6	-26.9
Horse beans	417.9	310.9	-107.0	-25.6
Chick peas	587.2	381.7	-205.5	-35.0
Haricot beans	1.3	1.3	0.0	0.0
Field peas	215.3	215.3	0.0	0.0
Lentils	89.1	49.0	-40.1	-45.0
OTHERS	247.9	232.6	-15.3	- 6.2
Neug	108.2	113.6	5.4	5.0
Flax				
Linseed	8.1	7.1	- 1.0	-12.5
Vetch	131.6	111.9	-19.7	-15.0
TOTAL	6127.7	5655.6	-472.1	- 7.7

Table 2.6

COMPARISON OF PRODUCTION OF MAJOR CROPS IN  
1977/78(1970E.C)AND 1978/79(1971E.C)IN  
HARARGHE REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	1531.0	1602.9	71.9	4.7
Teff	16.5	18.2	1.7	10.0
Barley	8.3	8.4	0.1	1.8
Wheat	38.5	34.7	- 3.9	-10.0
Maize	283.8	302.8	19.0	6.7
Sorghum	1176.6	1230.7	54.1	4.6
Millet	7.3	8.1	- 0.8	11.0
PULSES	26.5	26.8	0.3	1.6
Horse beans	14.0	12.7	- 1.3	- 9.2
Chick peas	1.1	1.4	0.3	30.0
Haricot beans	4.6	5.6	1.0	22.0
Field peas	3.3	3.1	- 0.2	- 5.0
Lentils	3.5	4.0	0.5	15.0
OTHERS				
Neug				
Flax (Linseed)				
Vetch				
TOTAL	1557.5	1629.7	72.2	4.6

Table 2.7

COMPARISON OF PRODUCTION OF MAJOR CROPS IN  
1977/78(1970E.C)AND 1978/79(1971E.C) IN  
ILLUBABOR REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	967.2	1113.3	146.1	15.1
Teff	266.9	325.4	58.5	21.9
Barley	11.8	12.8	1.0	8.2
Wheat	4.8	3.7	- 1.1	-22.1
Maize	479.5	539.9	60.4	12.6
Sorghum	148.1	168.7	20.6	13.9
Millet	56.1	62.8	6.7	12.0
PULSES	23.9	21.5	- 2.4	-10.0
Horse beans	2.3	1.9	- 0.4	-15.8
Chick peas	10.8	9.9	- 0.9	- 8.7
Haricot beans	2.3	2.6	+ 0.3	13.0
Field peas	8.5	7.1	- 1.4	-16.2
Lentils				
OTHERS	4.6	4.6	0.0	0.0
Neug	4.6	4.6	0.0	0.0
Flax (Linseed )				
Vetch				
TOTAL	995.7	1139.4	143.7	14.4

Table 2.8

COMPARISON OF PRODUCTION OF MAJOR CROPS IN  
1977/78(1970E.C)AND 1978/79(1971E.C) IN  
KEFFA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	2450.8	2872.3	421.5	17.2
Teff	807.5	914.1	106.6	13.2
Barley	158.9	182.7	23.8	15.0
Wheat	80.6	86.2	5.6	6.9
Maize	1199.1	1452.1	253.0	21.1
Sorghum	170.5	202.7	32.2	18.9
Millet	34.2	34.5	0.3	1.0
PULSES	140.3	152.6	12.3	8.7
Horse beans	47.6	51.7	4.1	8.6
Chick peas				
Haricot beans				
Field peas	92.7	100.9	8.2	8.8
Lentils				
OTHERS	6.1	6.1	0.0	0.0
Neug	6.1	6.1	0.0	0.0
Flax (Linseed)				
Vetch				
TOTAL	2597.2	3031.1	433.9	16.7

Table 2.9

COMPARISON OF PRODUCTION OF MAJOR CROPS IN  
1977/78(1970E.C)AND 1978/79(1971E.C) IN  
SHOA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$\frac{100cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	8888.3	9234.1	345.8	4.0
Teff	2318.5	2687.1	368.6	15.9
Barley	1139.2	1125.5	- 13.7	- 1.2
Wheat	812.5	823.9	11.4	1.4
Maize	2824.0	3016.0	192.0	6.8
Sorghum	1776.3	1564.9	-211.4	-11.9
Millet	17.8	16.7	- 1.1	- 6.2
PULSES	1648.1	1619.8	- 28.3	- 2.0
Horse beans	1098.8	1087.8	- 11.0	- 1.0
Chick peas	201.3	207.3	6.0	3.0
Haricot beans	76.8	71.4	- 5.4	- 7.0
Field peas	163.8	157.1	- 6.7	- 4.1
Lentils	107.4	96.2	- 11.2	-10.4
OTHERS	210.4	215.9	5.5	3.0
Neug	15.8	11.6	- 4.2	-26.6
Flax (Linseed)	18.8	12.3	- 6.5	-34.5
Vetch	55.8	60.0	4.2	7.5
Oats	120.0	132.0	12.0	10.0
TOTAL	10746.8	11069.8	323.0	3.0

Table 2.10

COMPARISON OF PRODUCTION OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN SIDAMO REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	Thousand quintals			Per cent
CEREALS	1191.7	1230.4	38.7	3.0
Teff	105.5	126.6	21.1	20.0
Barley	159.1	179.3	20.2	12.7
Wheat	6.9	6.5	- 0.4	-6.5
Maize	900.7	899.8	- 0.9	-0.1
Sorghum	19.5	18.2	- 1.3	-6.7
Millet				
PULSES	84.1	83.9	- 0.2	-0.2
Horse beans	17.6	18.2	0.6	3.6
Chick peas	24.3	25.2	-0.9	-3.7
Haricot beans	28.1	25.5	-2.6	-9.3
Field peas	14.1	15.0	0.9	6.7
Lentils				
OTHERS				
Neug				
Flax (Linseed)				
Vetch				
TOTAL	1275.8	1314.3	38.5	3.0

Table 2.11

COMPARISON OF PRODUCTION OF MAJOR CROPS IN  
1977/78 (1970 E.C) AND 1978/79 (1971 E.C) IN WELLEGA  
REGION

Crop	Estimate in:		Change	
	1977/78 (1970 E.C)	1978/79 (1971 E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	2298.6	2353.6	55.0	2.0
Teff	798.2	830.1	31.9	4.0
Barley	73.2	73.1	- 0.1	- 0.2
Wheat	12.6	11.7	- 0.9	- 6.8
Maize	723.6	727.2	3.6	0.5
Sorghum	449.9	482.7	32.8	7.3
Millet	241.1	228.8	- 12.3	- 5.1
PULSES	73.4	64.8	- 8.6	-11.7
Horse beans	26.9	23.5	- 3.4	-12.6
Chick peas	0.9	0.9	0.0	1.0
Haricot beans	13.7	12.7	- 1.0	- 7.3
Field peas	17.9	15.3	- 2.6	-14.5
Lentils	14.0	12.4	- 1.6	-11.4
OTHERS	103.2	93.9	- 9.3	- 9.0
Neug	100.7	91.6	- 9.1	- 9.0
Flax (Linseed)	1.2	1.1	- 0.1	- 4.5
Vetch				
Sesame	1.3	1.2	- 0.1	- 7.7
TOTAL	2475.2	2512.3	37.1	1.5

Table 2.12

COMPARISON OF PRODUCTION OF MAJOR CROPS IN  
1977/78(1970E.C)AND 1978/79(1971E.C) IN  
WELLO REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	Thousand quintals			Per cent
CEREALS	1851.4	1659.3	-192.1	-10.4
Teff	649.5	672.9	23.4	3.6
Barley	30.5	21.9	- 8.6	-28.2
Wheat	186.6	184.9	- 1.7	- 0.9
Maize	76.1	68.0	- 8.1	-10.7
Sorghum	904.9	707.6	-197.3	-21.8
Millet	3.8	4.0	0.2	5.0
PULSES	345.8	352.2	6.4	2.0
Horse beans	276.8	287.9	11.1	4.0
Chick peas	7.7	6.7	- 1.0	-12.7
Haricot beans				
Field peas	29.2	27.8	- 1.4	- 4.8
Lentils	32.1	29.8	- 2.3	- 7.1
OTHERS	35.0	24.5	-10.5	-30.0
Neug	0.4	0.5	0.1	33.0
Flax (Linseed)	3.1	3.5	0.4	12.9
Vetch	25.4	15.3	-10.1	-39.8
Oats	5.6	4.8	- 0.8	-14.5
Sesame	0.5	0.4	- 0.1	-12.5
TOTAL	2232.2	2036.0	- 196.2	- 8.8

Table 3.1

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN ARSSI REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	quintals/hectare			Per cent
CEREALS	12.6	12.2	-0.4	-3.2
Teff	13.2	11.3	-1.9	-14.1
Barley	11.3	10.9	-0.4	-3.6
Wheat	12.4	12.4	0.0	0.0
Maize	15.8	14.9	-0.9	-5.8
Sorghum	15.7	15.1	-0.6	-3.5
Millet				
PULSES	9.7	8.4	-1.3	-13.3
Horse beans	12.3	10.6	-1.7	-13.8
Chick peas	10.5	7.2	-3.3	-31.6
Haricot beans	4.0	4.1	0.1	1.9
Field peas	6.2	5.3	-0.9	-15.1
Lentils	3.4	3.1	-0.3	-9.1
OTHERS	7.0	6.5	-0.5	-8.2
Neug	5.0	3.0	-2.0	-40.0
Flax				
Linseed	8.6	8.0	-0.6	-6.7
Vetch	4.0	4.0	0.0	0.0
Fenu greek	5.1	5.1	0.0	0.0
TOTAL	12.1	11.6	-0.5	-4.3

Table 3.2

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN BALE REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	quintals/hectare			Per cent
CEREALS	12.8	12.8	0.0	0.0
Teff	6.5	6.4	-0.1	-1.1
Barley	13.7	13.5	-0.2	-1.8
Wheat	11.0	12.0	+1.0	+8.9
Maize	41.7	39.3	-2.4	-5.8
Sorghum	8.7	8.6	-0.1	-1.2
Millet	6.3	6.3	0.0	0.0
PULSES	8.6	8.6	0.0	0.0
Horse beans	11.9	12.6	0.7	5.5
Chick peas	10.0	15.0	5.0	50.0
Haricot beans				
Field peas	7.8	7.5	-0.3	- 3.8
Lentils	10.8	16.5	5.8	53.5
OTHERS	5.9	5.5	-0.4	- 7.5
Neug				
Flax Linseed	5.9	5.5	-0.4	- 7.5
Vetch				
TOTAL	12.1	12.1	0.0	0.0

Table 3.3

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN GAMO GOFFA  
REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.4}$
	quintals/hectare			Per cent
CEREALS	5.1	4.6	- 0.6	-10.8
Teff	4.4	4.3	- 0.1	- 2.7
Barley	2.4	2.3	- 0.1	- 5.6
Wheat	2.6	2.6	0.0	0.0
Maize	8.4	7.2	- 1.2	-14.6
Sorghum	6.3	5.6	- 0.7	-10.4
Millet	6.0	5.5	- 0.5	- 8.3
PULSES	2.7	2.3	- 0.4	-14.8
Horse beans	2.7	2.5	- 0.2	- 7.5
Chick peas	3.1	2.2	- 0.9	-29.0
Haricot beans	4.0	3.9	- 0.1	- 2.5
Field peas	1.9	1.8	- 0.1	- 6.9
Lentils	4.0	4.0	0.0	0.0
OTHERS	5.5	5.7	0.2	3.5
Neug	=	=	=	=
Flax (Linseed)	=	=	=	=
Vetch	=	=	=	=
TOTAL	4.9	4.4	- 0.5	-10.2

Table 3.4

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN GOJJAM REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	quintals/hectare			Per cent
CEREALS	7.7	7.0	- 0.6	- 4.2
Teff	7.9	7.5	- 0.4	- 5.4
Barley	5.1	4.3	- 0.8	-15.3
Wheat	7.9	7.2	- 0.7	- 9.5
Maize	7.6	6.7	- 0.9	-11.7
Sorghum	9.6	6.5	- 3.1	-31.8
Millet	10.8	10.5	- 0.3	- 2.9
PULSES	7.1	6.4	- 0.7	- 9.6
Horse beans	9.2	8.1	- 1.1	-11.5
Chick peas	3.6	3.0	- 0.6	-15.5
Haricot beans				
Field peas	4.3	4.5	0.2	5.2
Lentils	11.8	7.1	-4.7	-39.8
OTHERS	3.0	2.8	-0.2	- 8.3
Neug	2.8	2.4	-0.4	-12.9
Flax (Linseed)	2.7	2.5	-0.2	- 7.8
Vetch	4.8	5.1	0.2	5.1
Rape seed	23.0	23.0	0.0	0.0
TOTAL	7.2	6.6	-0.6	-8.3

Table 3.5

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN GONDAR REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	quintals/hectare			Per cent
CEREALS	9.5	9.1	- 0.4	- 4.6
Teff	9.6	10.0	0.4	4.3
Barley	9.1	7.5	- 1.6	-17.7
Wheat	4.8	4.2	- 0.6	-12.6
Maize	6.9	6.7	- 0.2	- 2.7
Sorghum	10.1	10.5	0.4	4.1
Millet	13.3	11.3	- 2.1	-15.4
PULSES	9.8	7.0	- 2.8	-28.7
Horse beans	7.7	5.5	- 2.2	-29.0
Chick peas	11.0	7.2	- 3.8	-34.3
Haricot beans	2.6	2.6	=	=
Field peas	14.1	13.2	- 1.0	- 6.7
Lentils	9.0	4.9	- 4.2	-46.1
OTHERS	4.1	3.9	- 0.2	- 5.5
Neug	2.7	2.8	0.1	5.0
Flax (Linseed)	3.9	3.4	- 0.5	-12.3
Vetch	7.2	6.1	- 1.1	-15.0
TOTAL	9.1	8.2	- 0.9	- 9.7

Table 3.6

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN HARARGE REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	quintals/hectare			Per cent
CEREALS	6.7	7.5	0.8	11.9
Teff	6.1	7.0	0.9	14.8
Barley	4.9	5.3	0.4	8.2
Wheat	5.6	6.0	0.4	7.1
Maize	6.9	7.6	0.7	10.7
Sorghum	6.7	7.5	0.8	12.6
Millet	10.4	10.1	- 0.3	- 2.9
PULSES	6.5	8.1	1.7	25.6
Horse beans	4.8	5.3	0.5	10.4
Chick peas	5.5	14.0	+8.5	+154.5
Haricot beans	15.3	18.7	3.4	22.2
Field peas	11.0	15.5	4.5	40.9
Lentils	8.8	13.3	4.5	51.1
OTHERS				
Neug				
Flax (Linseed)				
Vetch				
TOTAL	6.7	7.6	0.9	12.7

Table 3.7

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN ILLUBABOR REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	quintals/hectare			Per cent
CEREALS	7.6	8.0	0.4	4.7
Teff	5.9	6.9	1.0	16.8
Barley	3.6	3.7	0.1	1.9
Wheat	2.3	2.1	-0.2	-10.1
Maize	8.7	8.5	-0.2	-2.1
Sorghum	9.4	9.6	0.2	2.2
Millet	10.0	10.1	0.1	1.1
PULSES	2.9	2.4	-0.5	-17.2
Horse beans	1.3	1.0	-0.3	-21.7
Chick peas	6.0	5.0	-1.0	-16.7
Haricot beans	7.5	6.5	-1.0	-13.3
Field peas	2.0	1.5	-0.5	-25.0
Lentils	7.5	7.7	0.2	2.7
OTHERS	3.5	3.5	0.0	0.0
Neug	3.5	3.5	0.0	0.0
Flax (Linseed)	=	=	=	=
Vetch	=	=	=	=
TOTAL	7.3	7.6	0.3	4.1

Table 3.8.

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN KEFFA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	c1.3-c1.2	$100 \frac{c1.4}{c1.2}$
	quintals/hectare			Per cent
CEREALS	7.8	8.0	0.2	2.5
Teff	7.7	7.8	0.1	1.5
Barley	7.6	7.9	0.3	3.9
Wheat	11.5	11.3	- 0.2	- 1.7
Maize	8.3	8.5	0.2	2.4
Sorghum	6.1	6.5	0.4	6.6
Millet	4.8	4.6	- 0.2	- 4.2
PULSES	8.6	9.0	0.4	4.7
Horse beans	6.3	6.6	0.3	4.8
Chick peas				
Haricot beans				
Field peas	10.4	11.0	0.6	5.8
Lentils				
OTHERS	5.1	5.1	0.0	0.0
Neug	5.1	5.1	0.0	0.0
Flax Linseed				
Vetch				
TOTAL	7.9	8.1	0.2	+2.5

Table 3.9

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN SHOA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	quintals/hectare		Per cent	
CEREALS	8.9	8.9	- 0.0	- 0.3
Teff	7.6	7.8	0.2	2.8
Barley	6.0	5.6	- 0.3	- 5.4
Wheat	5.1	5.2	0.1	1.3
Maize	15.0	15.4	0.4	2.8
Sorghum	11.9	11.4	- 0.5	- 3.8
Millet	5.2	5.2	- 0.0	- 0.3
PULSES	7.6	7.3	- 0.3	- 4.3
Horse beans	11.0	10.3	- 0.7	- 6.4
Chick peas	4.5	4.5	0.0	0.7
Haricot beans	6.2	6.3	0.1	1.3
Field peas	5.6	5.3	- 0.3	- 5.4
Lentils	3.6	3.3	- 0.3	- 9.2
OTHERS	5.5	5.9	0.4	6.8
Neug	4.5	3.2	- 1.3	-28.6
Flax (Linseed)	3.6	2.1	- 1.5	-41.2
Vetch	4.6	4.6	0.0	0.9
Oats	7.0	9.3	2.3	33.2
TOTAL	8.6	8.5	- 0.1	- 0.7

Table 3.10

COPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN SIDAMO REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	quintals/hectare		Per cent	
CEREALS	8.2	7.5	- 0.7	- 8.6
Teff	9.3	9.6	0.3	+ 2.9
Barley	3.4	3.3	- 0.1	- 3.2
Wheat	13.8	13.0	- 0.8	- 5.8
Maize	10.6	9.5	- 1.1	-10.0
Sorghum	8.1	7.6	- 0.5	- 6.7
PULSES	8.3	7.9	- 0.4	- 4.8
Horse beans	5.5	5.4	- 0.1	- 2.7
Chick peas	7.6	7.2	- 0.4	- 5.3
Haricot beans	11.7	11.1	- 0.6	- 5.3
Field peas	10.9	10.7	- 0.2	- 1.8
Lentils	8.2	7.5	- 0.7	- 8.5
OTHERS	=	=	=	=
Neug	=	=	=	=
Flax (Linseed)	=	=	=	=
Vetch	=	=	=	=
TOTAL	8.2	7.5	- 0.7	- 8.5

Table 3.11

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79(1971E.C) IN WELLEGA REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	quintals/hectare		Per cent	
CEREALS	5.3	5.1	- 0.2	- 4.0
Teff	5.0	4.7	- 0.4	- 7.1
Barley	5.3	5.1	- 0.2	- 3.6
Wheat	5.3	5.1	- 0.2	- 3.1
Maize	5.2	5.1	- 0.1	- 2.3
Sorghum	6.0	6.1	0.0	0.7
Millet	5.7	5.3	- 0.3	- 5.5
PULSES	5.0	4.7	0.3	- 6.0
Horse beans	4.6	4.3	- 0.3	- 6.3
Chick peas	1.8	1.8	0.0	0.0
Haricot beans	5.7	5.5	- 0.2	- 3.5
Field peas	5.1	4.6	- 0.5	- 9.3
Lentils	5.6	5.4	- 0.2	- 3.6
OTHERS	4.4	3.9	- 0.5	-11.4
Neug	4.4	3.9	- 0.5	-11.3
Flax (Linseed)	4.0	3.7	- 0.3	- 8.3
Vetch				
Sesame	6.3	6.0	- 0.3	- 4.8
TOTAL	5.3	5.0	- 0.3	- 5.6

Table 3.12

COMPARISON OF YIELD OF MAJOR CROPS IN 1977/78  
(1970E.C) AND 1978/79 (1971E.C) IN WOLLO REGION

Crop	Estimate in:		Change	
	1977/78 (1970E.C)	1978/79 (1971E.C)	cl.3-cl.2	$100 \frac{cl.4}{cl.2}$
	quintals/hectare			Per cent
CEREALS	10.9	10.5	- 0.4	- 3.7
Teff	11.2	10.4	- 0.8	- 6.8
Barley	6.9	5.9	- 1.0	-14.3
Wheat	9.1	9.3	0.2	- 2.6
Maize	10.6	10.0	- 0.6	- 5.6
Sorghum	11.4	11.2	- 0.2	- 1.3
Y Millet	12.7	13.3	0.6	5.3
PULSES	9.7	9.3	- 0.4	- 4.3
Horse beans	12.4	11.6	- 0.8	- 6.4
Chick peas	2.0	1.8	- 0.2	- 8.3
Haricot beans	=	=	=	=
Field peas	5.1	5.1	0.0	0.5
Lentils	8.7	7.5	- 1.2	-14.1
OTHERS	5.3	3.9	- 1.4	-26.7
Neug	1.3	1.7	0.4	30.8
Flax (Linseed)	3.9	3.9	0.0	0.0
Vetch	6.0	3.9	- 2.1	-35.0
Oats	5.6	5.3	- 0.3	- 5.8
Sesame	1.7	1.3	- 0.4	-20.0
TOTAL	10.5	10.0	- 0.5	- 4.4

Table 4.1

CHANGE OF TEFF PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		9317.7	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-712.3	- 7.7	100.0
		too much rain	-146.4	- 1.6	20.5
		shortage of rain	-218.1	- 2.3	30.6
		pest, plant diseases	-100.3	- 1.1	14.1
		hail, forst and flood	-187.2	- 2.0	26.3
		wild animals	- 4.5	- 0.1	0.6
	increased by:	All factors	1282.0	13.8	100.0
		better weather conditions	837.6	9.0	65.3
		increased area	226.9	4.4	17.1
		use of fertilizers	196.8	2.1	15.4
		better management	2.4	0.0	0.2
	Total change		569.7	6.1	

Table 4.2

CHANGE OF BARLEY PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production			Estimate of production		
			Thousand quintals	Percentages	
in 1970 E.C.			5795.7	100.0	x
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-695.5	-12.0	100.0
		too much rain	-138.5	- 2.4	19.9
		shortage of rain	-213.9	- 3.7	30.8
		pest, plant diseases	-123.3	- 2.1	17.7
		hail, frost and flood	-131.1	- 2.3	18.8
		wild animals	- 15.2	- 0.3	2.2
	increased by:	All factors	696.3	12.0	100.0
		better weather conditions	252.8	4.4	36.3
		increased area	224.4	3.9	32.2
		use of fertilizers	138.5	2.4	19.9
		better management	56.6	1.0	8.1
Total change			0.8	0.0	

Table 4.3

CHANGE OF WHEAT PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		3689.6	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-364.5	- 9.9	100.0
		too much rain	-117.0	- 3.2	32.1
		shortage of rain	-101.4	- 2.8	27.8
		pest, plant diseases	- 94.6	- 2.6	25.9
		hail, frost and flood	- 37.1	- 1.0	10.2
		wild animals	- 1.1	- 0.0	0.3
		increased by:	All factors	582.4	15.8
	better weather conditions		221.5	6.0	38.0
	increased area		75.2	2.0	12.9
	use of fertilizers		228.9	6.2	39.3
	better management		42.9	1.2	7.4
	Total change		217.9	5.9	

Table 4.4

CHANGE OF MAIZE PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production			Estimate of production		
			Thousand quintals	Percentages	
in 1970 E.C.			7956.9	100.0	x
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-753.1	-9.5	100.0
		too much rain	- 72.8	-0.9	9.7
		shortage of rain	-412.5	-5.2	54.8
		pest, plant diseases	- 69.5	-0.9	9.2
		hail, frost and flood	- 79.6	-1.0	10.6
		wild animals	- 57.9	-0.7	7.7
	increased by:	All factors	1219.6	15.4	100.0
		better weather conditions	690.1	8.7	56.6
		increased area	265.9	3.3	21.8
		use of fertilizers	195.2	2.5	16.0
		better management	16.5	0.2	1.4
	Total change			466.5	5.9

Table 4.5

CHANGE OF SORGHUM PRODUCTION  
IN 1978/79 (1971 E.C) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
In 1970 E.C.		5707.7	100.0	x	
in 1978/79 (1971 E.C) compared to last year	decreased by:	All factors	-941.7	-16.5	100.0
		too much rain	- 26.6	- 0.5	2.8
		shortage of rain	-609.1	-10.7	64.7
		pest, plant diseases	- 61.8	- 1.1	6.6
		hail, frost and flood	- 19.6	- 0.3	2.1
		wild animals	- 12.2	- 0.2	1.3
	increased by:	All factors	692.4	12.1	100.0
		better weather conditions	404.7	7.1	58.4
		increased area	148.7	2.6	21.5
		use of fertilizers	28.1	0.5	4.1
		better management	9.1	0.2	1.3
	Total change		-249.3	-4.4	

CHANGE OF MILLET PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		1572.3	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-194.0	-12.3	100.0
		too much rain	- 22.2	- 1.4	11.4
		shortage of rain	- 91.9	- 5.8	47.4
		pest, plant diseases	- 55.4	- 3.5	28.6
		hail, frost and flood	- 4.2	- 0.3	2.1
		wild animals	- 3.5	- 0.2	1.8
		increased by:	All factors	31.7	2.0
	better weather conditions		25.0	1.6	79.2
	increased area		5.2	0.3	16.6
	use of fertilizers		0.5	0.0	1.7
	better management		0.0	0.0	0.0
	Total change		-162.3	-10.3	

CHANGE OF HORSE BEANS PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		2664.9	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-398.5	-15.0	100.0
		too much rain	- 92.5	- 3.5	23.2
		shortage of rain	- 38.9	- 1.5	9.8
		pest, plant diseases	-187.9	- 7.1	47.2
		hail, frost and floor	- 69.6	- 2.6	17.5
		wild animals	- 0.1	- 0.0	0.0
	increased by:	All factors	236.5	8.9	100.0
		better weather conditions	186.6	7.0	78.9
		increased area	27.0	1.0	11.4
		use of fertilizers	14.9	0.6	6.3
		better management	4.6	0.2	1.9
	Total change		-162.0	-6.1	

Table 4.8

CHANGE OF CHICK PEAS PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		872.1	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-233.1	-26.7	100.0
		too much rain	- 8.3	- 0.9	3.5
		shortage of rain	-87.8	-10.1	37.7
		pest, plant diseases	-115.1	-13.2	49.4
		hail, frost and flood	- 4.5	- 0.5	1.9
		wild animals	-	-	-
	increased by:	All factors	26.5	3.0	100.0
		better weather conditions	18.0	2.1	73.0
		increased area	5.3	0.6	21.4
		use of fertilizers	0.0	0.0	0.0
		better management	0.1	0.0	0.4
	Total change		-206.6	-23.7	

Table 4.9

CHANGE OF HARICOT BEANS PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		135.2	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-13.2	- 9.7	100.0
		too much rain	- 0.3	- 0.2	-1.0
		shortage of rain	- 4.2	- 3.1	31.6
		pest, plant diseases	- 3.4	- 2.5	25.8
		hail, frost and flood	- 0.2	- 0.2	1.8
		wild animals	- 0.3	- 0.2	1.9
		All factors	5.7	4.2	100.0
	increased by:	better weather conditions	4.0	3.0	71.2
		increased area	0.6	0.5	11.0
		use of fertilizers	0.0	0.0	0.5
		better management	-	-	-
	Total change		-7.5	-5.5	

Table 4.10

CHANGE OF FIELD PEAS PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		797.7	100.0	x	
in 1978/79(1971E.C) compared to last year	decreased by:	All factors	-147.5	-18.5	100.0
		too much rain	- 23.0	- 2.9	15.6
		shortage of rain	- 35.0	- 4.4	23.7
		pest, plant diseases	- 64.3	- 8.1	43.6
		hail, frost and flood	- 9.1	- 1.1	6.2
		wild ani- mals	- 0.8	- 0.1	0.6
		All factors	153.4	19.2	100.0
	increased by:	better wea- ther condi- tions	27.1	3.4	17.7
		increased area	24.4	3.1	15.9
		use of fer- tilizers	5.0	0.6	3.3
		better man- agement	0.0	0.0	0.0
		Total change	5.9	0.7	

Table 4.11

CHANGE OF LENTILS PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		285.2	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-68.6	-24.1	100.0
		too much rain	- 7.2	- 2.5	10.4
		shortage of rain	-38.7	-13.6	56.4
		pest, plant diseases	- 9.2	- 3.2	13.3
		hail, frost and flood	-10.3	- 3.8	15.6
		wild animals	-	-	-
		All factors	8.5	3.0	100.0
	increased by:	better weather conditions	4.3	1.5	50.5
		increased area	1.5	0.5	17.1
		use of fertilizers	1.3	0.5	15.2
		better management	0.0	0.0	0.0
	Total change		-60.1	-21.1	

Table 4.12

CHANGE OF FLAX(LINSEED) PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		105.3	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-16.9	-16.0	100.0
		too much rain	- 6.9	- 6.5	48.8
		shortage of rain	-	-	-
		pest, plant diseases	- 5.8	- 5.5	34.1
		hail, frost and flood	- 2.7	- 2.6	16.2
		wild animals	-	-	-
		All factors	3.4	3.2	100.0
	increased by:	better weather conditions	1.6	1.5	47.8
		increased area	1.9	1.8	54.8
		use of fertilizers	-	-	-
		better management	-	-	-
	Total change		-13.5	-12.8	

†Table 4.13

CHANGE OF NEUG PRODUCTION  
IN 1978/79 (1971 E.C.) COMPARED TO LAST  
YEAR BY REASONS

Production		Estimate of production			
		Thousand quintals	Percentages		
in 1970 E.C.		348.4	100.0	x	
in 1978/79 (1971 E.C.) compared to last year	decreased by:	All factors	-40.4	-11.6	100.0
		too much rain	- 5.5	- 1.6	13.6
		shortage of rain	- 6.0	- 1.8	14.9
		pest, plant diseases	-17.0	- 5.0	42.2
		hail, frost and flood	- 6.1	- 1.8	15.1
		wild animals	- 3.1	- 0.9	7.6
	increased by:	All factors	13.5	3.9	100.0
		better weather conditions	12.2	3.2	90.8
		increased area	0.9	0.3	6.8
		use of fertilizers	0.3	0.1	2.4
		better management	0.0	0.0	0.0
	Total change		-26.9	-7.7	

