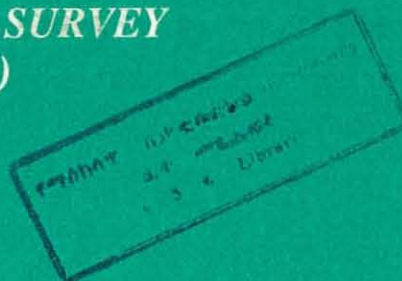


THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

CENTRAL STATISTICAL AUTHORITY

*AGRICULTURAL SAMPLE SURVEY
1997/98 (1990 E.C.)*



REPORT ON

**FARM MANAGEMENT PRACTICES
OF BELG SEASON CROPS**

FOR
1997/98 (1990 E.C.)

(Private Peasant Holdings)

VOLUME VII

*Addis Ababa
JANUARY, 1999*

226

STATISTICAL BULLETIN

226

000019

4/5 AEG 0001815

24/11/92

C-5

THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
CENTRAL STATISTICAL AUTHORITY

AGRICULTURAL SAMPLE SURVEY
1997/98 (1990 E.C.)

REPORT ON

FARM MANAGEMENT PRACTICES
OF BELG SEASON CROPS

FOR
1997/98 (1990 E.C)

(Private Peasant Holdings)

VOLUME VII

የጥንቃቄ ስርዓት
በ.ጥ. ስርዓት
C. S. A. Library

Addis Ababa
JANUARY, 1999

PREPARED AND PRINTED BY
CENTRAL STATISTICAL AUTHORITY
P.O.BOX 1143 ADDIS ABABA
Tel. 55-30-11

CONTENTS

	<u>PAGE</u>
LIST OF TABLES	IV
LIST OF SUMMARY TABLES.....	VIII
LIST OF FIGURES.....	IX
PART I. INTRODUCTION AND OBJECTIVES OF THE SURVEY.....	1-2
1. INTRODUCTION.....	1
2. OBJECTIVES OF THE SURVEY.....	2
PART II. SURVEY METHODOLOGY, DATA COLLECTION AND	
PROCESSING	3-11
1. SCOPE, COVERAGE AND CONTENT OF THE SURVEY.....	3
2. SAMPLE DESIGN.....	3
3. FIELD ORGANIZATION.....	6
4. TRAINING OF FIELD STAFF.....	6
5. METHOD OF DATA COLLECTION.....	7
6. EDITING, CODING, AND VERIFICATION.....	8
7. DATA ENTRY, CLEANING AND TABULATION.....	8
8. BASIC CONCEPTS AND DEFINITIONS.....	9
PART III. SUMMARY OF THE RESULTS OF THE 1997/98 (1990 E.C.)	
FARM MANAGEMENT PRACTICES OF	
BELG SEASON SURVEY.....	13-94
APPENDIX I- ESTIMATION PROCEDURES OF TOTAL, AND	
SAMPLING ERROR	95
APPENDIX II- STANDARD ERROR AND COEFFICIENT OF	
VARIATION.....	101

SECTION 1: 1.1 TOTAL AREA UNDER DIFFERENT FARM MANAGEMENT PRACTICES..... 14

1.2 TOTAL AREA UNDER FERTILIZER BY TYPE..... 30

 A. USE OF NATURAL FERTILIZER..... 31

 B. USE OF COMMERCIAL FERTILIZER..... 31

1.3 TOTAL QUANTITY OF COMMERCIAL FERTILIZER APPLIED BY TYPE 41

SECTION 2: 2.1 TOTAL AREA AND DISTRIBUTION OF AREA UNDER DIFFERENT FARM MANAGEMENT PRACTICES BY AREA SIZE GROUPS..... 49

2.2 THE DISTRIBUTION OF AREA UNDER DIFFERENT FARM MANAGEMENT PRACTICES BY AREA SIZE GROUPS..... 61

SECTION 3: 3.1 TOTAL NUMBER OF BELG CROP PRODUCING HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE 69

ABBREVIATIONS

CSA - CENTRAL STATISTICAL AUTHORITY

EC - ETHIOPIAN CALENDAR

CV - COEFFICIENT OF VARIATION

SE - STANDARD ERROR

HA - HECTARE

QT - QUINTAL

SNNPR - SOUTHERN NATION, NATIONALITIES

AND PEOPLES REGION

LIST OF TABLES

	<u>PAGE</u>
Table 1 Estimates of Area under improved farm management practices for Belg season crops of private holdings, 1997/98 (1990 E.C.)	

1.1 Ethiopia by Crop.....	19
1.2 Ethiopia by Region.....	20
1.3 Tigray.....	21
1.4 Afar.....	22
1.5 Amhara.....	23
1.6 Oromiya.....	24
1.7 Somalie.....	25
1.8 Benshangul-Gumuz.....	26
1.9 S.N.N.P.R.....	27
1.10 Gambela.....	28
1.11 Harari.....	28
1.12 Addis Ababa.....	29
1.13 Dire Dawa.....	29

Table 2 Estimates of Fertilizer applied area by type of fertilizer for Belg season crops of private holdings, 1997/98 (1990 E.C.)	
--	--

2.1 Ethiopia by Crop.....	33
2.2 Tigray.....	34
2.3 Afar.....	34
2.4 Amhara.....	35
2.5 Oromiya.....	36
2.6 Somalie.....	37
2.7 Benshangul-Gumuz.....	37
2.8 S.N.N.P.R.....	38

2.9 Gambela.....	39
2.10 Harari.....	39
2.11 Dire Dawa.....	40

Table 3 Estimates of Quantity of commercial fertilizer applied by type of fertilizer for Belg season crops of private holdings, 1997/98 (1990 E.C.)

3.1 Ethiopia by Crop	42
3.2 Tigray	43
3.3 Amhara	43
3.4 Oromiya	44
3.5 Somalie	45
3.6 Benshangul-Gumuz	45
3.7 S.N.N.P.R	46
3.8 Gambela	47
3.9 Harari	47
3.10 Dire Dawa	48

Table 4 Estimates of Area by area size groups for Belg season crops of private holdings, 1997/98 (1990 E.C.)

4.1 Ethiopia by Crop.....	50
4.2 Ethiopia by Region.....	51
4.3 Tigray.....	52
4.4 Afar.....	53
4.5 Amhara.....	54
4.6 Oromiya.....	55
4.7 Somalie.....	56
4.8 Benshangul-Gumuz.....	57

	<u>PAGE</u>
4.9 S.N.N.P.R.....	58
4.10 Gambela.....	59
4.11 Harari.....	59
4.12 Addis Ababa.....	60
4.13 Dire Dawa.....	60

Table 5 Estimates of Area under improved farm management practices by area size groups for Belg season crops of private holdings, 1997/98 (1990 E.C.)

5.1 Ethiopia by Crop.....	62
5.2 Tigray.....	63
5.3 Afar.....	63
5.4 Amhara.....	64
5.5 Oromiya.....	64
5.6 Somalie.....	65
5.7 Benshangul-Gumuz.....	65
5.8 S.N.N.P.R.....	66
5.9 Gambela	66
5.10 Harari	67
5.11 Addis Ababa.....	67
5.12 Dire Dawa.....	68

Table 6 Estimates of total number of holder and type of holding during 1997/98 (1990 E.C.) Belg crop production season for private holdings.

6.1 Ethiopia by Crop.....	71
6.2 Ethiopia by Region.....	72
6.3 Tigray.....	73
6.4 Afar.....	74

6.5 Amhara.....	75
6.6 Oromiya.....	76
6.7 Somalie.....	77
6.8 Benshangul-Gumuz.....	78
6.9 S.N.N.P.R.....	79
6.10 Gambela.....	80
6.11 Harari.....	81
6.12 Addis Ababa.....	82
6.13 Dire Dawa.....	83

Table 7 Estimates of total number of belg crop producing Holders reporting use of improved farm management practices by age for Belg season crops of private holdings, 1997/98 (1990 E.C.)

7.1 Ethiopia by Crop.....	84
7.2 Tigray.....	85
7.3 Afar.....	86
7.4 Amhara.....	87
7.5 Oromiya.....	88
7.6 Somalie.....	89
7.7 Benshangul-Gumuz.....	90
7.8 S.N.N.P.R.....	91
7.9 Gambela.....	92
7.10 Harari.....	93
7.11 Dire Dawa.....	94

LIST OF SUMMARY TABLES

	<u>PAGE</u>
SUMMARY TABLE A: - Summary of the survey results	13
SUMMARY TABLE B: - Estimates of total area under improved farm management practices for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C.)	14
SUMMARY TABLE C: - Estimates of total area under improved farm management practices for belg season crops of private holdings in Ethiopia 1997/98 (1990 E.C.) by crop type.....	15
SUMMARY TABLE D: - Estimates of total area under improved farm management practices for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C.) by Region.....	17
SUMMARY TABLE E:- Estimates of total area under fertilizer by type of fertilizer for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C.).....	30
SUMMARY TABLE F:- Estimates of total area under Improved farm management practices by area size groups for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C.)	61
SUMMARY TABLE G:- Estimates of total number of belg crop producing Holders reporting use of farm management practices by age for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C.).....	70

LIST OF FIGURES

	<u>PAGE</u>
Figure 1 Estimates of total area under improved farm management practices for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C)	16
Figure 2 Estimates of area under improved farm management practices for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C) by region.....	18
Figure 3 Estimates of fertilizer applied area by type for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C.).....	31
Figure 4 Estimates of total quantity of commercial fertilizer applied by type for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C)	41
Figure 5 Estimate of total area under belg season crops by area size groups for private holdings in Ethiopia, 1997/98 (1990 E.C.).....	49

PART I

INTRODUCTION AND OBJECTIVE OF THE SURVEY

1. INTRODUCTION

Agriculture is the backbone of the Ethiopian economy. The country's economic development highly depends on the development of the agricultural sector. Farmers' interest in the adoption and acceptance of new innovations and modern agricultural techniques and technologies, such as use of fertilizers, irrigation, improved seeds and pesticides, do have influencing impact on the development of the agricultural sector as a whole.

The extent of adopting modern agricultural practices, such as utilization of fertilizer, irrigation, pesticides and improved seeds, by the traditional peasant farmers can be considered as important indicators for estimating the rate of adoption of modern technologies.

This report presents quantitative information about the use of modern agricultural inputs of belg season crops in 1997/98 (1990 E.C.) for private peasant holdings. It is presented at country and regional levels as obtained from the results of the belg agricultural sample survey conducted in May 1998 by the Central Statistical Authority (CSA). The report is subdivided into three sections:

Section 1:- deals with estimates of total area under different farm management practices, total area under fertilizer application by type of fertilizer and quantity of commercial fertilizer in 1997/98 (1990 E.C.) belg season.

Section 2:- deals with estimates of total area under belg season crops and the distribution of area under different farm management practices by area size groups in 1997/98(1990 E.C.) belg season.

Section 3:- deals with estimates of total number of belg crop producing holders reporting the use of improved farm management practices by age in 1997/98(1990 E.C.) belg season.

2. OBJECTIVE OF THE SURVEY

The general objective of the survey is to collect basic quantitative information on Ethiopia's agriculture. This information is essential for development planning and socioeconomic policy formulation.

In a micro-perspective, the objectives of this Survey are to estimate the total cultivated land; total production and yield per hectare of major crops for both the Meher and Belg Seasons. Data on area under different land uses, and quantity and cost of agricultural inputs by type for both seasons is also collected. From the sample, the number of livestock and poultry by type, purpose, sex and age, and number of beehives in the private peasant holdings are estimated at the national, regional and zonal levels. However, the current report on belg farm management practices features national and regional levels.

PART II
SURVEY METHODOLOGY, DATA COLLECTION
AND PROCESSING

1. SCOPE COVERAGE AND CONTENT OF THE SURVEY

The 1997/98 (1990 E.C.) annual Agricultural Sample Survey covers only sedentary rural agricultural population in all regions of the country. A total of 56 zones and 409 weredas were covered in the survey. The geographic coverage of the survey is given in page 5.

A total of 1,380 enumeration areas were selected to be covered in the Survey in all regions. However, during the data collection stage the survey succeeded to cover only 1,330 enumeration areas (EAs) for Belg Season Survey. In each EA a sample of 25 agricultural households, were selected resulting to a total of 29,046 households, out of which 12,207 households have practiced Belg Season crop production.

2. SAMPLE DESIGN

A two-stage stratified sample design is used for the 1997/98 (1990 E.C.) Annual Agricultural Sample Survey. All regions except Harari, Addis Ababa, Dire Dawa and Gambella are broken into zones and treated as strata for survey summarization purposes, but for the four mentioned regions, the strata are the regions themselves. The first-stage sample design consists of primary sampling units (PSUs) in all strata, which are enumeration areas (EAs). The second-stage sampling units are agricultural households selected as the secondary level

sampling units. The survey questionnaires are administered to all agricultural holders in the sampled agricultural households.

Based on cost and field enumeration considerations, a fixed number of sample EAs were allocated to each stratum/ reporting level taking into consideration the desired precision of the estimates and number of households per stratum. The overall sample number of EAs in a stratum was proportionately allocated to zones/special weredas within stratum based on their number of households. From within each Zone/Special Wereda sample EAs were selected with probability proportional to size, size being the total number of households identified for EAs as obtained from the 1994 Population Census. From each sample EA, 25 agricultural households were sampled systematically without replacement from a newly enumerated list of agricultural households.

Information was collected from all twenty-five households except for crop-cutting data, which is collected from only the last 15 agricultural households, starting from the 11th selected agricultural households. Data is collected on separate questionnaires from each holder within these twenty-five sampled households.

The estimation formulation procedures for totals and ratios of the agricultural variables estimated and the measure of their precision are presented in the **Appendix I and II**.

AREAL COVERAGE OF THE 1997/98 (1990 E.C.)

AGRICULTURAL SAMPLE SURVEY

REGION	NUMBER OF ZONES			NUMBER OF WEREDAS	
	PLANNED TO BE COVERED IN THE SURVEY	COVERED IN THE SURVEY	NOT COVERED IN THE SURVEY	PLANNED TO BE COVERED IN THE SURVEY	COVERED IN THE SURVEY
TIGRAY	5	4	-	34	31
AFAR	5	3	2	8	7
AMHARA	11	10	1	93	92
OROMIA	12	12	-	174	171
SOMALIE	9	3	6	9	9
BENISHANGUL-GUMUZ	3	3	-	20	15
S.N.N.P.R	14	14	-	74	72
GAMBELA	4	3	1	5	5
HARARI	1	1	-	1	1
ADDIS ABABA	6	2	4	5	5
DIRE DAWA	1	1	-	1	1
TOTAL	71	56	14	424	409

Notes

1. In Tigray Region, four out of five zones have rural settled population. The remaining one zone the entire population is urban resident.
2. Afar Region has a total of five zones, however only two zones have significant rural sedentary population.
3. Somalie Region has a total of nine zones, however only three zones have significant rural sedentary population.
4. Addis Ababa has a total of six zones, however, only two zones have rural settled population. In the remaining four zones the entire population is urban resident.

3. FIELD ORGANIZATION.

The CSA'S Branch Statistical Office heads, field supervisors and enumerators, other support staff and drivers were all involved in the conduct of the ASS area and production survey data collection effort. To accomplish the data collection all field enumerators were equipped with the necessary survey equipment (i.e. compass, protractor, ruler, measuring tape, balance scale, poles, ropes, sample bags, ...etc.) at the completion of training. To assist with the fieldwork and data collection activities, all available four-wheel drive vehicles were used for supervision and collection of completed questionnaires.

4. TRAINING OF FIELD STAFF.

The field staff-training program was carried out in two stages. The first-stage consisted of trainees from the head office, branch statistical office heads and some of the field supervisors being given training for one week at CSA'S headquarters complex in Addis Ababa. Many of those trained in the first-stage conducted similar training for field supervisors and enumerators for 10 days in all of CSA'S 15 branch offices, which are distributed around the country. During this second-stage training, the field staff were given detailed classroom instruction on the objectives and uses of the ASS, concepts and definitions of terms used, the method of area measurement, method of crop cutting, as well as correct interviewing procedures, ... etc. The enumerator training also included a field practice to reinforce the concepts discussed in the classroom with regard to field measurement and crop cutting data collection.

5. METHOD OF DATA COLLECTION

The information on agricultural practices (use of fertilizer, use of pesticides, use of improved seeds and use of irrigation), area and production of major belg season crops were collected subjectively by interviewing the holders in the sampled households.

There are two well known crop production seasons in Ethiopia Meher (Main) and Belg seasons. According to generally accepted definitions, Meher season refers to long rainy season, which normally occurs from June to September, while "Belg Season" refers to small rainy season, which normally occurs from February to May. In most cases during Belg period long maturing crops are planted and their harvest can extend to December or January. Most of the time, short maturing crops are planted during Belg period and are harvested in June or July.

However, due to the heterogeneity of belg practices in different parts of the country and the overlapping nature of sowing time for some meher season crops the reports on belg season crops in the past faced problem of identification. Hence, in order to report the two season's crops separately and also not to overlook or miss agricultural practices performed all the year round, either through irrigation, use of soil moister from dried swampy or marshy areas the following definition has been adopted since 1987/88.

Belg season crops are defined as any crops that are harvested during the months of March to August, while those crops that are harvested during September to February are considered as main (meher) season crops.

6. EDITING, CODING AND VERIFICATION.

To insure the quality of the collected survey data an editing, coding and verification instruction manual was written, and sixty-five editors, coders and verifiers were trained for two days to edit, code and verify the data using the aforementioned manual as a reference and teaching aid.

The enumerator completed questionnaires were edited, coded and later verified by supervisors on a 100% basis before the questionnaires were sent to the data processing unit for data entry. The editing, coding and verification of all questionnaires was completed in thirty eight days.

7. DATA ENTRY, CLEANING AND TABULATION

Before starting data entry of the questionnaire data, experts in agricultural statistics prepared edit specifications for use on personal computers utilizing the Integrated Microcomputer Processing System (IMPS) software for data consistency checking purposes.

The data on the coded questionnaires were then entered into the IMPS software on personal computers. The data was then checked and cleaned using the edit specifications prepared earlier for this purpose. Thirty data encoders were involved in this total process and it took thirty-three days to complete the job. Finally, tabulation was done on personal computers to produce results as indicated in the tabulation plan.

8. BASIC CONCEPTS AND DEFINITIONS

The concepts and definitions used in the survey are defined as follows.

Enumeration Area (EA): An Enumeration Area in rural parts of the Country is a locality that is less than or equal to a farmer's association area and usually it consists of 150-200 households.

Households: A household may be either;

- a) A one person household, that is a person who makes provision for his own food or other essentials for living without combining with any other person to form part of a multi person household or,
- b) A multi person household, that is, a group of two or more persons who live together and make common provision for food or other essentials for living. The persons in the group may pool their incomes and have a common budget to greater or lesser extent. They may be related or unrelated persons, or a combination of both.

Holder: A holder is a person who exercises management control over the operations of the agricultural holding and takes the major decision regarding the utilization of the available resources. He has technical and economic responsibility for the holding. He may operate the holding directly as an owner or as a manager.

Under conditions of traditional agricultural holding the holder may be regarded as the person, who with or without help

of others, operates land or raises livestock in his own right. That is, the person who decides on what, when, where and how to grow crops or raise livestock and has right to determine the utilization of the products.

Holding: A holding is all the land and livestock kept which is used wholly or partly for agricultural production and is operated as one technical unit by one person alone, or with others, without regard to title, legal form, size or location.

Area size groups: In this report area size group is determined by total area under major belg season crops which is mainly land area under temporary crops.

Agricultural Households: A household is considered an agricultural household when at least one member of the household is engaged in growing crops and/or breeding and raising livestock in private or in partnership with others.

Parcel: A parcel of holding is any piece of land entirely surrounded by land, water road, forest, ...etc. which is not part of the holding. It may consist one or more cadastral units, plots or field adjacent to each other.

Field: A field is defined as any plot of land, which is a parcel, or part of a parcel under the same crop.

Belg season crops: are defined as any crops that are harvested during the months of March (Megabit) to August (Nehase).

Meher season crops: crops that are harvested during the months of September (Meskerem) to February (Yekatit) are considered as main (Meher) season crops.

Irrigated area: refers to the area of land purposely and actually provided with water, other than by rain, for improving the production of crops. The uncontrolled flooding of land by the over flow of rivers or streams is not categorized as irrigation practice although sometimes farmers use this incidence for production.

Improved Seed: is defined as crop variety which gives significantly higher yield, better quality and/or better benefit compared to traditional varieties of seeds, and usually produced by the Ethiopian Seed Enterprise (ESE) in Ethiopia.

Fertilizer: refers to anything added to the soil intended to increase the amount of plant nutrients available for crop growth. Usually fertilizers are divided into two parts, Natural and Commercial. Examples of natural fertilizers are farmyard manure and wood ashes while commercial fertilizers are DAP (DI-Ammonium Phosphate) and UREA (Ammonium Nitrate).

Pesticides: Pesticides are chemicals useful for the mitigation, control or elimination of pests which are trouble some or harmful to crops. Insecticides, herbicides and fungicides are all considered as pesticides.

NOTE

1. If in some tables figures do not add up to total it is due to rounding.
2. Those estimates designated by "***" in all tables could not be reported because of high coefficient of variation (i.e. they are consolidated in total estimates.)
3. In all tables "-" labeled for data not available and "0.00" indicates the value is insignificant.

PART III

SUMMARY OF THE RESULTS OF THE 1997/98 (1990 E.C.)

FARM MANAGEMENT PRACTICES OF BELG SEASON SURVEY

As mentioned earlier, the results of the 1997/98 (1990 E.C.) agricultural sample survey on belg season farm management practices are presented in three sections. In each section short descriptive analysis and tables with numerical results for the country and region levels are presented.

According to 1997/98 (1990 E.C.) annual agricultural sample survey results, it was estimated that belg season major crops covered 822.40 thousand hectares of land. In which 5324.60 thousand holders were engaged in the production activity. Of the total area under belg season major crops 259.68 thousand hectares (31.58 %) was under the use of improved farm management practices in which 549.04 (10.31 %) thousand belg crop producing holders reported to be involved in applying different agricultural inputs.

Moreover, in 1997/98 (1990 E.C) it was estimated that a total of 1,195,660 quintals of commercial fertilizers was utilized for belg season crop production. The details in each of the above mentioned variables are discussed in the following sub-sections.

SUMMARY TABLE A : SUMMARY OF THE SURVEY RESULTS

* Belg Crop Area (000' ha)	822.40
* Number of Belg Crop Producing Holders (in million)	5.32
* Improved Farm Management Practices (000' ha)	259.68
* Number of holders reporting the use of farm management practices (in million)	0.55
* Quantity of commercial fertilizer (000' qt)	1195.66

SECTION 1.

1.1 TOTAL AREA UNDER DIFFERENT FARM MANAGEMENT PRACTICES

According to the 1997/98 (1990 E. C.) agricultural sample survey results, it was estimated that belg season major crops covered about 822.40 thousand hectares of land. Of this total 259.68 hectares (31.58% of the total) was under the use of improved farm management practices. Moreover, of the above mentioned total area under improved farm inputs, 183.93 thousand hectares (70.83%) was under fertilizer (both natural and commercial), 40.94 thousand hectares (15.76%) was under irrigation, 10.38 thousand hectares (4.00%) was treated with pesticides and 24.43 thousand hectares (9.41%) was under improved seeds. The coverage of the above mentioned farm management practices accounted for 22.37%, 4.98%, 1.26% and 2.97% of the total area under belg season crops respectively (see summary Table B).

SUMMARY TABLE B: ESTIMATES OF TOTAL AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98 (1990 E.C.)

TYPE OF IMPROVED FARM MANAGEMENT PRACTICES	AREA UNDER IMPROVED FARM MANAGE. PRA.	%	% FROM TOTAL BELG CROP AREA
IRRIGATION	40.94	15.76	4.98
IMPROVED SEEDS	24.43	9.41	2.97
FERTILIZER	183.93	70.83	22.37
PESTICIDES	10.38	4.00	1.26
TOTAL	259.68	100	31.58

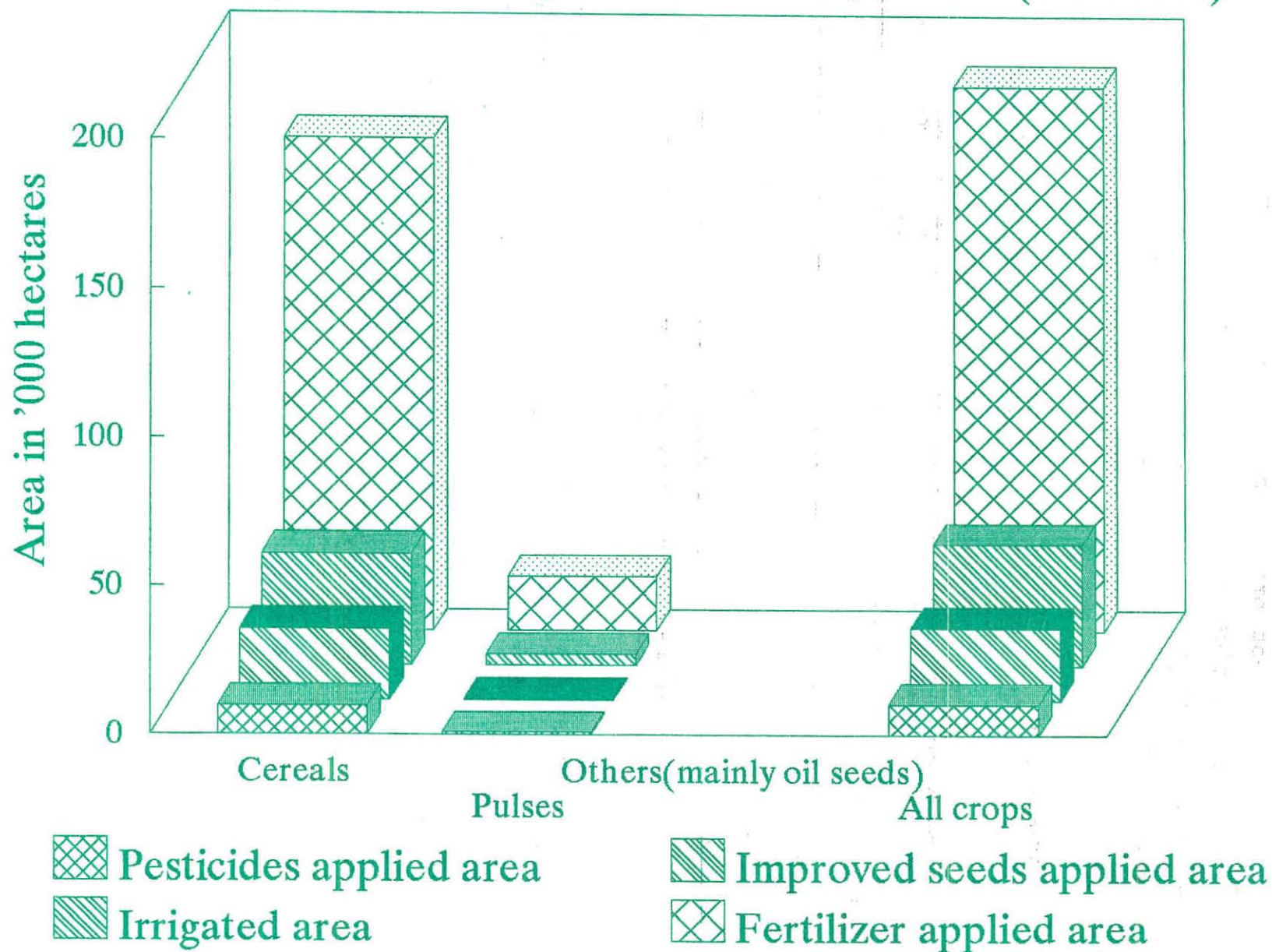
The estimates of total land area under different farm management practices for belg season crops of 1997/98 (1990 E.C.) is presented in Summary Table C. As it is indicated in the summary table, the highest proportion of crop area under different farm management practices was reported to be covered by belg cereals, which accounted for 236.61 thousand hectares (91.20%). Furthermore, about 23 thousand hectares (8.88%) was accounted for belg pulses.

SUMMARY TABLE C: ESTIMATES OF TOTAL AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98 (1990 E.C.)

CROP TYPE	TOTAL BELG CROP AREA		AREA UNDER IMPROVED FARM MANAGEMENT PRAC.	
	'000 HA	%	'000 HA	%
CEREALS	710.07	86.34	236.61	91.20
PULSES	107.94	13.13	23.07	8.88
OTHERS	4.39	0.71	-	-
TOTAL	822.40	100	259.68	100

In almost all belg producing regions of the country, improved farm inputs were utilized for belg crop production. As indicated in Summary Table D, the largest area under belg season crops was reported by Oromiya Region, covering 50.21% (412,920 hectares). The second and third were S.N.N.P and Amhara regions with the coverage of 23.74% (195,240 hectares) and 22.58 (185,710 hectares), respectively.

Figure 1. Estimates of total area under improved farm management practices for belg season crops by private holdings in ETHIOPIA, 1997/98(1990 E.C.)



SUMMARY TABLE D: ESTIMATES OF TOTAL AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98 (1990 E.C.)

REGION	TOTAL BELG CROP AREA		AREA UNDER FARM MANAGEMENT PRACTICES	
	000 HA	%	000 HA	%
TIGRAY	10.41	1.27	1.00	0.39
AFAR	3.83	.47	0.43	0.17
AMHARA	185.71	22.58	33.19	12.78
OROMIA	412.92	50.21	118.24	45.53
SOMALIE	4.80	0.58	1.11	0.43
BENSHANGUL-GUMEZ	6.91	0.84	1.5	0.58
S.N.N.P.R	195.24	23.74	103.34	39.79
GAMBELA	1.24	0.15	0.28	0.11
HARARI	0.89	0.11	0.27	0.10
ADDIS ABABA	0.09	0.01	-	-
DIRE DAWA	0.38	0.05	0.32	0.12
TOTAL	822.40	100.00	259.68	100.00

Fig 2. Estimates of area under improved farm management practices for Belg Season crops of private holdings in Ethiopia, 1997/98(1990 E.C.) By Region

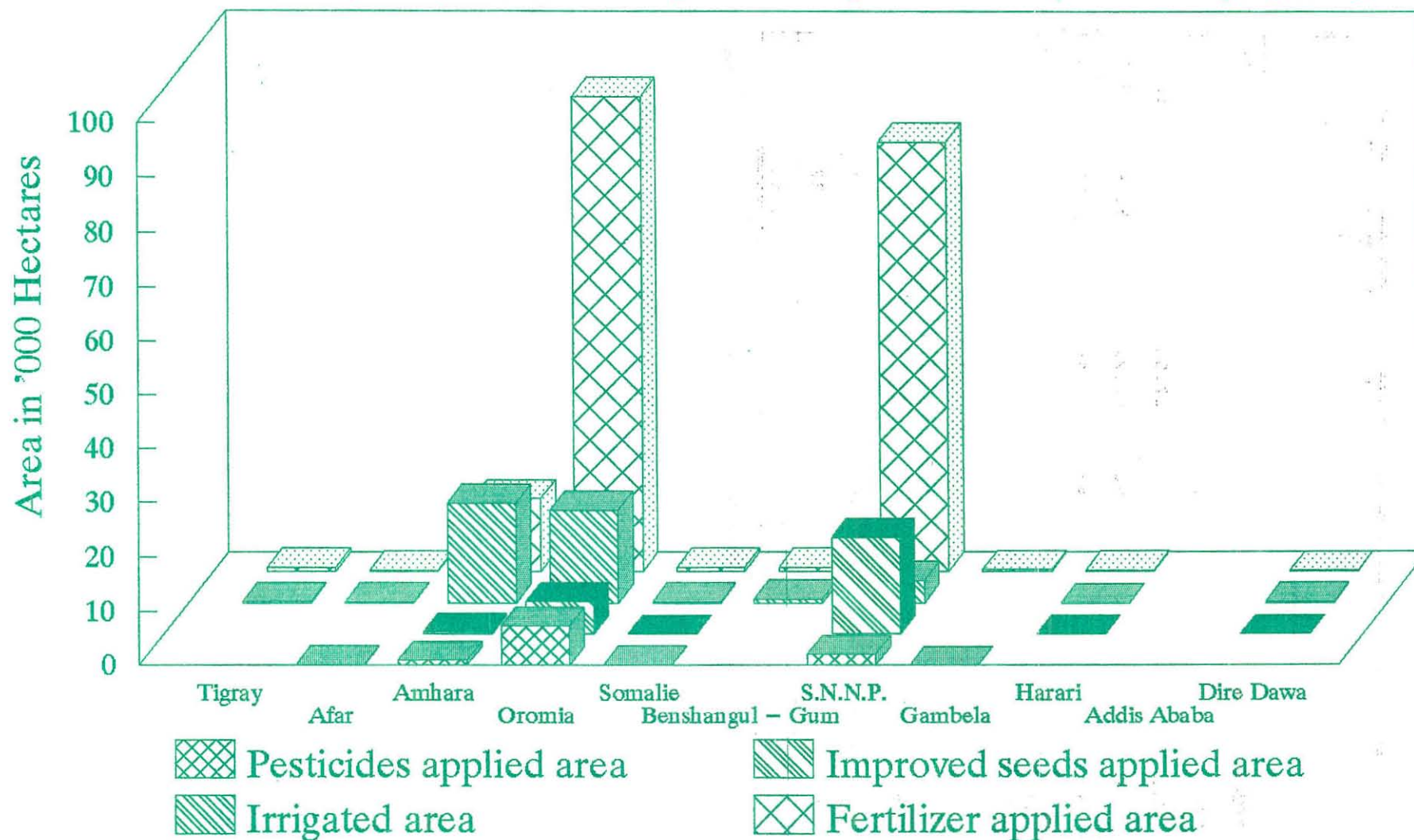


TABLE 1.1

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
 BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
 1997/98(1990 E.C.)

ETHIOPIA

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPRPOVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	710.07	86.34	37.34	91.21	24.06	98.49	165.62	90.05	9.59	92.39
Teff	59.92	7.29	5.52	13.48	**	**	6.01	3.27	3.73	35.93
Barley	215.08	26.15	1.43	3.49	-	-	47.16	25.64	**	**
Wheat	43.90	5.34	**	**	1.93	7.90	13.54	7.36	1.31	12.62
Maize	347.81	42.29	28.18	68.83	22.08	90.38	90.29	49.09	1.42	13.68
Sorghum	27.01	3.28	**	**	**	**	4.50	2.45	**	**
Millet	.88	.11	-	-	-	-	**	.09	**	**
Oats	15.47	1.88	**	**	-	-	3.95	2.15	**	**
PULSES	107.94	13.13	**	**	**	**	18.31	9.95	**	**
Horse Beans	4.10	.50	-	-	-	-	**	.08	-	-
Field Peas	16.77	2.04	-	-	-	-	**	.48	-	-
Haricot Beans	57.54	7.00	**	**	**	**	16.71	9.08	**	**
Chick Peas	9.84	1.20	**	**	**	**	**	**	**	**
Lentils	19.02	2.31	-	-	-	-	**	**	-	-
Vetch	**	**	**	**	-	-	-	-	-	-
OTHERS	4.39	**	-	-	-	-	-	-	-	-
Neug	**	-	-	-	-	-	-	-	-	-
LinSeed	**	**	-	-	-	-	-	-	-	-
Rapeseed	**	**	-	-	-	-	-	-	-	-
Ground Nuts	**	**	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Fenugreek	**	**	-	-	-	-	-	-	-	-
ALL CROPS	822.40	100.00	40.94	100.00	24.43	100.00	183.93	100.00	10.38	100.00

TABLE 1.2

ESTIMATES OF AREA UNDER DIFFERENT FARM MANAGEMENT PRACTICES BY REGION FOR BELG
SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

AREA (IN '000 HECTARES)

REGION	TOTAL BELG CROP AREA	%	AREA UNDER FARM MANAGEMENT PRACTICES							
			IRRIGATED	%	IMPROVED SEEDS APPLIED	%	FERTILIZER APPLIED (NAT + COM)	%	PESTICIDE APPLIED	%
TIGRAY	10.41	1.27	.21	.51	-	-	.79	.43	-	-
AFAR	3.83	.47	.18	.44	-	-	.19	.10	.06	.58
AMHARA	185.71	22.58	18.39	44.91	.42	1.72	13.45	7.31	.93	8.97
OROMIYA	412.92	50.21	17.04	41.61	6.11	25.01	87.81	47.74	7.28	70.20
SOMALIE	4.80	.58	.18	.44	.07	.29	.80	.43	.06	.58
BENSHANGUL-GUMUZ	6.91	.84	.70	1.71	-	-	.80	.43	-	-
S.N.N.P.	195.24	23.74	4.09	9.99	17.81	72.90	79.41	43.17	2.03	19.58
GAMBELA	1.24	.15	-	-	-	-	.27	.15	.01	.10
HARARI	.89	.11	.01	.02	.01	.04	.25	.14	-	-
ADDIS ABABA	.09	.01	-	-	-	-	-	-	-	-
DIRE DAWA	.38	.05	.15	.37	.01	.04	.16	.09	-	-
TOTAL AREA	822.42	100.00	40.95	100.00	24.43	100.00	183.93	100.00	10.37	100.00

TABLE 1.3

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
 BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
 1997/98(1990 E.C.)

Tigray

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPROVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	10.21	98.08	**	**	-	-	**	**	-	-
Teff	**	**	-	-	-	-	-	-	-	-
Barley	1.75	16.81	**	**	-	-	**	**	-	-
Wheat	**	**	-	-	-	-	-	-	-	-
Maize	**	**	**	**	-	-	**	**	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	**	**	-	-	-	-	-	-	-	-
ALL CROPS	10.41	100.00	**	**	-	-	**	**	-	-

TABLE 1.4

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
 BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
 1997/98(1990 E.C.)

Afar

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGEMENT PRACTICES							
			IRRGATED	%	IMPRVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	2.77	72.32	.18	100.00	-	-	.17	89.47	**	**
Teff	2.12	55.35	.06	33.33	-	-	.14	73.68	**	**
Barley	**	**	-	-	-	-	-	-	-	-
Wheat	.19	4.96	-	-	-	-	**	**	-	-
Maize	**	**	.12	66.67	-	-	-	-	-	-
Sorghum	**	**	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	1.06	27.68	-	-	-	-	**	**	.04	66.67
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	.48	12.53	-	-	-	-	**	**	-	-
Chick Peas	.58	15.14	-	-	-	-	**	**	.04	66.67
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
ALL CROPS	3.83	100.00	.18	100.00	-	-	.19	100.00	**	**

TABLE 1.5

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Amhara

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPRVOED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	154.27	83.07	15.41	83.75	.42	100.00	12.89	95.91	**	**
Teff	37.55	20.22	5.25	28.53	-	-	2.74	20.39	**	**
Barley	82.24	44.28	**	**	-	-	**	**	-	-
Wheat	8.80	4.74	**	**	-	-	**	**	-	-
Maize	15.57	8.38	6.76	36.74	.42	100.00	1.45	10.79	-	-
Sorghum	**	**	-	-	-	-	**	**	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	4.93	2.65	**	**	-	-	**	**	-	-
PULSES	31.34	16.88	**	**	-	-	**	**	**	**
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	8.12	4.37	-	-	-	-	**	**	-	-
Haricot Beans	5.48	2.95	**	**	-	-	**	**	-	-
Chick Peas	7.21	3.88	**	**	-	-	**	**	**	**
Lentils	10.25	5.52	-	-	-	-	-	-	-	-
Vetch	**	**	**	**	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	-	-	-	-
Neug	**	**	-	-	-	-	-	-	-	-
LinSeed	**	**	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
ALL CROPS	185.71	100.00	18.40	100.00	.42	100.00	13.44	100.00	**	**

TABLE 1.6

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Oromia

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPRVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	360.61	87.33	16.97	99.65	6.04	99.02	82.73	94.21	7.28	100.00
Teff	12.87	3.12	-	-	-	-	1.17	1.33	**	**
Barley	121.58	29.44	**	**	-	-	37.00	42.14	**	**
Wheat	33.61	8.14	**	**	1.87	30.66	12.74	14.51	1.24	17.03
Maize	175.20	42.43	16.84	98.88	**	**	28.26	32.18	1.15	15.80
Sorghum	**	**	-	-	-	-	-	-	-	-
Millet	**	**	-	-	-	-	**	**	**	**
Oats	10.54	2.55	-	-	-	-	3.52	4.01	**	**
PULSES	48.40	11.72	**	**	**	**	5.08	5.79	-	-
Horse Beans	3.46	.84	-	-	-	-	**	**	-	-
Field Peas	8.36	2.02	-	-	-	-	**	**	-	-
Haricot Beans	26.22	6.35	**	**	**	**	4.21	4.79	-	-
Chick Peas	**	**	-	-	-	-	-	-	-	-
Lentils	**	**	-	-	-	-	**	**	-	-
Vetch	**	**	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
LinSeed	**	**	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	**	**	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Fehugreek	**	**	-	-	-	-	-	-	-	-
ALL CROPS	412.92	100.00	17.03	100.00	6.10	100.00	87.81	100.00	7.28	100.00

TABLE 1.7

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Somale

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPRVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	4.46	92.92	**	**	**	**	**	**	**	**
Teff	-	-	-	-	-	-	-	-	-	-
Barley	**	**	-	-	-	-	-	-	-	-
Wheat	**	**	-	-	-	-	-	-	-	-
Maize	4.24	88.33	**	**	**	**	**	**	**	**
Sorghum	**	**	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
LinSeed	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	**	**	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
ALL CROPS	4.80	100.00	**	**	**	**	**	**	**	**

TABLE 1.8

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
 BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
 1997/98(1990 E.C.)

Benshangul-Gumuz

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPRVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	.28	4.06	.23	32.86	-	-	.04	5.00	-	-
Teff	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	.28	4.06	.23	32.86	-	-	.04	5.00	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	6.62	95.94	**	**	-	-	.76	95.00	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	6.62	95.94	**	**	-	-	.76	95.00	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
ALL CROPS	6.90	100.00	**	**	-	-	.80	100.00	-	-

TABLE 1.9

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

(S.N.N.P.R)

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPRVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	175.76	90.03	4.01	98.04	17.51	98.32	67.76	85.33	1.95	96.06
Teff	6.12	3.13	**	**	.04	.22	1.96	2.47	1.30	64.04
Barley	9.18	4.70	-	-	-	-	2.32	2.92	**	**
Wheat	1.21	.62	-	-	**	**	.36	.45	.07	3.45
Maize	143.64	73.57	3.75	91.69	17.41	97.75	58.54	73.72	**	**
Sorghum	14.96	7.66	**	**	**	**	4.45	5.60	**	**
Millet	.65	.33	-	-	-	-	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	19.43	9.95	**	**	**	**	11.65	14.67	**	**
Horse Beans	**	**	-	-	-	-	**	**	-	-
Field Peas	**	**	-	-	-	-	-	-	-	-
Haricot Beans	17.86	9.15	**	**	**	**	11.42	14.38	**	**
Chick Peas	**	**	-	-	**	**	**	**	**	**
Lentils	**	**	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	-	-	-	-
Neug	**	**	-	-	-	-	-	-	-	-
LinSeed	-	-	-	-	-	-	-	-	-	-
Rapeseed	**	**	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
ALL CROPS	195.23	100.00	4.09	100.00	17.81	100.00	79.41	100.00	2.03	100.00

TABLE 1.10

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Gambela

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MANGEMENT PRACTICES							
			IRRGATED	%	IMPRPOVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	1.23	100.00	-	-	-	-	.27	100.00	.01	100.00
Teff	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	1.22	99.19	-	-	-	-	.27	100.00	.01	100.00
Sorghum	**	**	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
ALL CROPS	1.23	100.00	-	-	-	-	.27	100.00	.01	100.00

TABLE 1.11

Harari

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MANGEMENT PRACTICES							
			IRRGATED	%	IMPRPOVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	.02	2.25	-	-	-	-	.01	4.00	-	-
Teff	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	.02	2.25	-	-	-	-	.01	4.00	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	.87	97.75	.01	100.00	.01	100.00	.24	96.00	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	.87	97.75	.01	100.00	.01	100.00	.24	96.00	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
ALL CROPS	.89	100.00	.01	100.00	.01	100.00	.25	100.00	-	-

TABLE 1.12

ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Addis Ababa

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPRVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	**	**	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-
Barley	**	**	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	-	-	-	-	-	-	-	-

29

TABLE 1.13 Dire Dawa

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL BELG CROP AREA	%	AREA UNDER FARM MAGAGEMENT PRACTICES							
			IRRGATED	%	IMPRVED SEEDS APPLIED	%	FERTILIZER APPLIED	%	PESTICIDES APPLIED	%
CEREALS	.38	100.00	.15	100.00	.01	100.00	.16	100.00	-	-
Teff	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	.32	84.21	.14	93.33	.01	100.00	.15	93.75	-	-
Sorghum	.06	15.79	.01	6.67	-	-	.01	6.25	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
ALL CROPS	.38	100.00	.15	100.00	.01	100.00	.16	100.00	-	-

1.2 TOTAL AREA UNDER FERTILIZER BY TYPE

The results of the survey indicate that land area under both natural and commercial fertilizers were estimated to be 189.80 thousand hectares, covering 23.08% of the total area under belg seasons crops of the private holdings. Of the total fertilized area 78.25 thousand hectares (41.23%) was reported to be under natural fertilizers. The coverage of commercial fertilizers was estimated to be 105.67 thousand hectares (55.67%), constituting of 42.23% DAP, 5.13% UREA and 8.31% mix of the two fertilizers (DAP+UREA). Moreover, 5880 hectares (3.1%) was reported to be the area under the mix of natural and commercial fertilizers (for details see Summary Table E.).

SUMMARY TABLE E: ESTIMATES OF TOTAL AREA UNDER FERTILIZER BY TYPE OF FERTILIZER FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

SR.NO	TYPE OF FERTILIZER	FERTILIZER APPLIED AREA		PERCENTAGE FROM TOTAL BELG CROP AREA
		000' HA	%	
1	NATURAL	78.25	41.23	9.52
2	COMMERCIAL	105.67	55.67	12.85
2.1	DAP	80.16	42.23	9.75
2.2	UREA	9.73	5.13	1.18
2.3	DAP+UREA	15.78	8.31	1.92
3	BOTH (COM+NAT)	5.88	3.1	0.71
	TOTAL	189.80	100	23.08

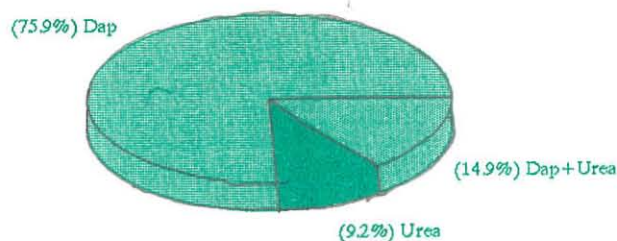
A. USE OF NATURAL FERTILIZERS

In general the application of natural fertilizers for belg season crops in 1997/98(1990 E.C.), varies from crop to crop. Of the total area under fertilizer , the highest proportion was reported for maize crop which was estimated at 53.41 thousand hectares (68.26%). The fertilized area (natural fertilizer) under barley was the second and estimated to be 7.06 thousand hectares(9.02%), while area under sorghum stood third with about four thousand hectares(5.33%) (see Table 2.1).

B. USE OF COMMERCIAL FERTILIZERS

Out of the total land area under commercial fertilizers in 1997/98(1990 E.C.) belg season, the area under DAP was the highest which accounted for 75.9%, while the mix of the two fertilizers (DAP+UREA) and UREA were covering 14.9% and 9.2% of the belg crop area, respectively (see Fig 3.).

Figure 3. Estimates of commercial fertilizer applied area by type for belg season crops of private holdings in Ethiopia,1997/98(1990 E.C.)



Similarly, the application of commercial fertilizers varied from crop to crop. Of the total area under commercial fertilizers , the highest area was reported for barley at 40.10 thousand hectares (37.95%). The second highest area reported under commercial fertilizers was for maize i.e 36.87 thousand hectares (34.89%) thousand hectares.

The regional distribution of both natural and commercial fertilizers application varied from region to region. For instance, of the total area under both (Natural + Commercial) fertilizers, the highest was reported for Oromiya Region which accounted for 88350 hectares (46.55% of the total). S.N.N.P and Amhara Regions were the second and third to report the highest area under both (Natural and Commercial) fertilizers which were estimated to be 83670 hectares (44.08%) and 14540 hectares (7.66%), respectively.

TABLE 2.1

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
 BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
 1997/98(1990 E.C.)

ETHIOPIA

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICIAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%
CEREALS	171.23	90.22	68.23	87.19	97.37	92.15	8.90	91.47	72.79	90.81	15.68	99.37	5.63	95.75
Teff	6.07	3.20	**	**	3.95	3.74	.56	5.76	2.36	2.94	**	**	.07	1.19
Barley	48.23	25.41	7.06	9.02	40.10	37.95	1.85	19.01	36.63	45.70	**	**	1.07	18.20
Wheat	13.54	7.13	1.05	1.34	12.49	11.82	**	**	10.92	13.62	**	**	-	-
Maize	94.60	49.84	53.41	68.26	36.87	34.89	5.27	54.16	19.41	24.21	12.19	77.25	4.32	73.47
Sorghum	4.53	2.39	4.17	5.33	.33	.31	.16	1.64	**	**	**	**	.03	.51
Millet	**	**	**	**	**	**	**	**	**	**	**	**	-	-
Oats	4.09	2.15	**	**	3.58	3.39	**	**	3.28	4.09	**	**	.14	2.38
PULSES	18.57	9.78	10.02	12.81	8.30	7.85	.83	8.53	7.37	9.19	.10	.63	**	**
Horse Beans	**	**	**	**	**	**	-	-	**	**	**	**	-	-
Field Peas	**	**	**	**	**	**	**	**	**	**	-	-	-	-
Haricot Beans	16.97	8.94	8.70	11.12	8.02	7.59	.60	6.17	7.32	9.13	.10	.63	**	**
Chick Peas	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Lentils	**	**	**	**	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	189.80	100.00	78.25	100.00	105.67	100.00	9.73	100.00	80.16	100.00	15.78	100.00	5.88	100.00

TABLE 2.4 ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
 BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
 1997/98(1990 E.C.)

Amhara		AREA (IN '000 HECTARES)													
TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%	
CEREALS	13.99	96.22	6.19	91.84	6.72	100.00	.07	100.00	**	**	1.76	100.00	1.08	100.00	
Teff	2.81	19.33	**	**	**	**	-	-	-	-	**	**	.07	6.48	
Barley	**	**	**	**	**	**	-	-	**	**	**	**	.92	85.19	
Wheat	**	**	**	**	**	**	-	-	**	**	**	**	-	-	
Maize	1.55	10.66	.88	13.06	.58	8.63	.07	100.00	**	**	.34	19.32	.09	8.33	
Sorghum	**	**	**	**	-	-	-	-	-	-	-	-	-	-	
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Oats	**	**	**	**	**	**	-	-	-	-	**	**	-	-	
PULSES	**	**	**	**	-	-	-	-	-	-	-	-	-	-	
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Field Peas	**	**	**	**	-	-	-	-	-	-	-	-	-	-	
Haricot Beans	**	**	**	**	-	-	-	-	-	-	-	-	-	-	
Chick Peas	**	**	**	**	-	-	-	-	-	-	-	-	-	-	
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ALL CROPS	14.54	100.00	6.74	100.00	6.72	100.00	.07	100.00	**	**	1.76	100.00	1.08	100.00	

TABLE 2.5 ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
 BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
 1997/98(1990 E.C.)

Oromia

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%
CEREALS	83.15	94.11	28.48	85.99	54.26	99.18	**	**	49.41	99.54	2.54	100.00	.41	78.85
Teff	1.18	1.34	**	**	1.13	2.07	-	-	1.13	2.28	-	-	-	-
Barley	37.14	42.04	3.92	11.84	33.08	60.46	1.22	48.22	30.73	61.91	**	**	.14	26.92
Wheat	12.74	14.42	.58	1.75	12.16	22.23	**	**	10.77	21.70	.66	25.98	-	-
Maize	28.39	32.13	23.93	72.25	4.33	7.91	.15	5.93	3.47	6.99	.71	27.95	.13	25.00
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	**	**	-	-	**	**	**	**	**	**	-	-	-	-
Oats	3.66	4.14	-	-	3.52	6.43	**	**	3.28	6.61	**	**	.14	26.92
PULSES	5.20	5.89	4.64	14.01	**	**	**	**	**	**	-	-	**	**
Horse Beans	**	**	**	**	**	**	-	-	**	**	-	-	-	-
Field Peas	**	**	**	**	**	**	**	**	**	**	-	-	-	-
Haricot Beans	4.33	4.90	4.04	12.20	**	**	-	-	**	**	-	-	**	**
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	**	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	88.35	100.00	33.12	100.00	54.71	100.00	2.53	100.00	49.64	100.00	2.54	100.00	.52	100.00

TABLE 2.6

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Somale

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%
CEREALS	**	**	**	**	-	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	-	-	-	-	-	-	-	-	-	-

TABLE 2.7 Benshangul-Gumuz

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%
CEREALS	**	**	**	**	-	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	**	**	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	-	-	-	-	-	-	-	-	-	-

TABLE 2.8

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
 BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
 1997/98(1990 E.C.)

(S.N.N.P.R)

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%
CEREALS	71.91	85.94	32.41	89.33	35.37	81.99	6.02	91.35	18.03	71.66	11.32	99.39	4.13	97.18
Teff	1.96	2.34	**	**	1.84	4.27	.56	8.50	1.24	4.93	**	**	-	-
Barley	2.32	2.77	**	**	2.00	4.64	**	**	1.25	4.97	**	**	**	**
Wheat	**	**	**	**	**	**	**	**	**	**	**	**	-	-
Maize	62.65	74.88	27.62	76.13	30.93	71.70	4.55	69.04	15.30	60.81	11.08	97.28	4.10	96.47
Sorghum	4.48	5.35	4.12	**	.33	.76	.16	2.43	**	**	**	**	.03	.71
Millet	**	**	**	**	**	**	-	-	-	-	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	11.76	14.06	3.87	10.67	7.77	18.01	.57	8.65	7.13	28.34	**	.61	.12	2.82
Horse Beans	**	**	-	-	**	**	-	-	-	-	**	**	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	11.53	13.78	3.65	10.06	7.76	17.99	.56	8.50	7.13	28.34	**	**	.12	2.82
Chick Peas	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	83.67	100.00	36.28	100.00	43.14	100.00	6.59	100.00	25.16	100.00	11.39	100.00	4.25	100.00

TABLE 2.9

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Gambela

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICIAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%
CEREALS	.27	100.00	-	-	.27	100.00	.27	100.00	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	.27	100.00	-	-	.27	100.00	.27	100.00	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	.27	100.00	-	-	.27	100.00	.27	100.00	-	-	-	-	-	-

TABLE 2.10 Harari

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICIAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%
CEREALS	**	**	.01	5.56	**	**	-	-	-	-	**	**	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	.01	5.56	**	**	-	-	-	-	**	**	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	.26	96.30	.17	94.44	.08	100.00	.04	100.00	.01	100.00	.03	100.00	.01	100.00
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	.26	96.30	.17	94.44	.08	100.00	.04	100.00	.01	100.00	.03	100.00	.01	100.00
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	.27	100.00	.18	100.00	.08	100.00	.04	100.00	.01	100.00	.03	100.00	.01	100.00

TABLE 2.11

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Dire Dawa

AREA (IN '000 HECTARES)

TYPE OF CROP	TOTAL (COMM+NAT)	%	NATURAL	%	COMME- RICAL	%	UREA	%	DAP	%	DAP+UREA	%	BOTH NAT+COM.	%
CEREALS	.15	100.00	.15	100.00	-	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	.14	93.33	.14	93.33	-	-	-	-	-	-	-	-	-	-
Sorghum	**	**	.01	6.67	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	.15	100.00	.15	100.00	-	-	-	-	-	-	-	-	-	-

1.3 TOTAL QUANTITY OF COMMERCIAL FERTILIZER APPLIED BY TYPE

In 1997/98 (1990 E.C) the total quantity of commercial fertilizer used for belg season crop production was estimated at 119,5660 quintals. Of this total, the share of DAP was the highest accounting for 68.7% (821,560 quintals). The mixture of the two types of fertilizers (DAP+UREA) was the second highest accounting for 25.50% (304,850 quintals) while UREA stood third accounting for 5.8% (69,250 quintals) (see Fig 4).

Figure 4. Estimates of total quantity of commercial fertilizer applied by type for belg season crops of private holdings in Ethiopia, 1997/98 (1990 E.C.)

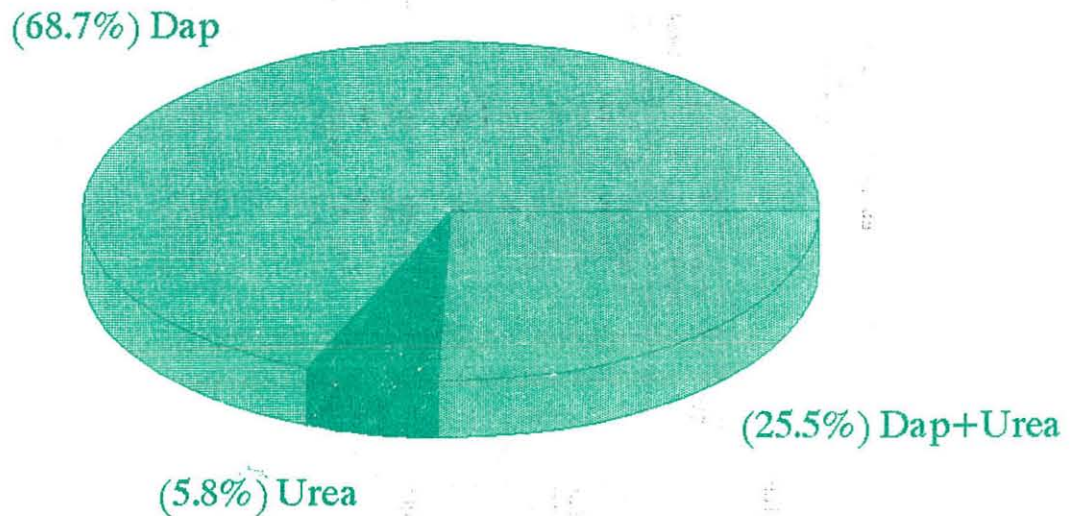


TABLE 3. ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED
BY TYPE OF FERTILIZER FOR BELG SEASON CROPS OF
PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Ethiopia

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	1,088.62	95.34	51.58	92.47	738.48	93.86	298.57	99.75
Teff	24.79	2.17	4.04	7.24	15.74	2.00	**	**
Barley	437.45	38.31	8.63	15.47	413.13	52.51	**	**
Wheat	116.28	10.18	**	**	94.03	11.95	17.59	5.88
Maize	487.97	42.74	32.85	58.89	196.44	24.97	258.68	86.43
Sorghum	2.39	.21	1.14	2.04	**	**	**	**
Millet	**	**	**	**	**	**	**	**
Oats	19.18	1.68	**	**	17.97	2.28	**	**
PULSES	53.23	4.66	4.20	7.53	48.29	6.14	.74	.25
Horse Beans	**	**	-	-	**	**	**	**
Field Peas	**	**	**	**	**	**	-	-
Haricot Beans	52.75	4.62	3.99	7.15	48.03	6.10	.73	.24
Chick Peas	**	**	**	**	-	-	-	-
Lentils	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-
ALL CROPS	1,141.85	100.00	55.78	100.00	786.77	100.00	299.31	100.00

Table 3.1 ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED
BY TYPE OF FERTILIZER FOR BELG SEASON CROPS OF
PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Tigray

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	4.53	100.00	**	**	**	**	2.00	100.00
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	4.53	100.00	**	**	**	**	2.00	100.00
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
ALL CROPS	4.53	100.00	**	**	**	**	2.00	100.00

TABLE 3.2 Amhara

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	71.20	100.00	.46	100.00	60.26	100.00	10.49	100.00
Teff	**	**	.13	28.26	-	-	**	**
Barley	60.31	84.71	-	-	58.64	97.31	**	**
Wheat	**	**	-	-	**	**	-	-
Maize	**	**	.33	71.74	**	**	3.86	36.80
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	**	**	-	-	-	-	**	**
ALL CROPS	71.20	100.00	.46	100.00	60.26	100.00	10.49	100.00

Table 3.3 ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED
BY TYPE OF FERTILIZER FOR BELG SEASON CROPS OF
PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1999 E.C.)

Oromia

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	534.69	99.40	9.84	98.11	492.11	99.38	32.74	100.00
Teff	**	**	-	-	**	**	-	-
Barley	358.26	66.60	4.93	49.15	340.36	68.74	**	**
Wheat	108.56	20.18	**	**	93.18	18.82	**	**
Maize	41.59	7.73	.43	4.29	32.83	6.63	8.33	25.44
Sorghum	-	-	-	-	-	-	-	-
Millet	**	**	**	**	**	**	-	-
Oats	18.44	3.43	.18	1.79	17.97	3.63	**	**
PULSES	3.24	.60	**	**	3.05	.62	-	-
Horse Beans	**	**	-	-	**	**	-	-
Field Peas	**	**	**	**	**	**	-	-
Haricot Beans	2.79	.52	-	-	2.79	.56	-	-
Chick Peas	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-
ALL CROPS	537.93	100.00	10.03	100.00	495.16	100.00	32.74	100.00

TABLE 3.4 ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED
BY TYPE OF FERTILIZER FOR BELG SEASON CROPS OF
PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Somale

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	**	**	-	-	**	**	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	**	**	-	-	**	**	-	-
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
ALL CROPS	**	**	-	-	.01	100.00	-	-

45

Table 3.5 Benshangul-Gumuz

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	.01	100.00	-	-	.01	100.00	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	.01	100.00	-	-	.01	100.00	-	-
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
ALL CROPS	.01	100.00	-	-	.01	100.00	-	-

TABLE 3.6 ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED
BY TYPE OF FERTILIZER FOR BELG SEASON CROPS OF
PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

(S.N.N.P.R)

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	477.86	90.63	39.76	91.32	184.82	80.37	253.28	99.81
Teff	12.94	2.45	3.91	8.98	8.23	3.58	**	**
Barley	18.87	3.58	**	**	14.13	6.14	**	**
Wheat	**	**	**	**	**	**	**	**
Maize	436.13	82.72	30.58	70.23	161.12	70.07	244.43	96.32
Sorghum	2.39	.45	1.14	2.62	**	**	**	**
Millet	**	**	-	-	-	-	**	**
Oats	-	-	-	-	-	-	-	-
PULSES	49.40	9.37	3.78	8.68	**	**	**	**
Horse Beans	**	**	-	-	-	-	**	**
Field Peas	-	-	-	-	-	-	-	-
Haricot Beans	49.37	9.36	3.76	8.64	**	**	**	**
Chick Peas	**	**	**	**	-	-	-	-
Lentils	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-
ALL CROPS	527.26	100.00	43.54	100.00	229.95	100.00	253.76	100.00

TABLE 3.7 ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED
BY TYPE OF FERTILIZER FOR BELG SEASON CROPS OF
PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Gambela

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	.23	100.00	.23	100.00	-	-	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	.23	100.00	.23	100.00	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
ALL CROPS	.23	100.00	.23	100.00	-	-	-	-

TABLE 3.8 Harari

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	**	**	-	-	-	-	**	**
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	**	**	-	-	-	-	**	**
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
PULSES	.59	93.65	.23	100.00	.11	100.00	.25	86.21
Horse Beans	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-
Haricot Beans	.59	93.65	.23	100.00	.11	100.00	.25	86.21
Chick Peas	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-
ALL CROPS	.63	100.00	.23	100.00	.11	100.00	.29	100.00

TABLE 3.9 ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED
BY TYPE OF FERTILIZER FOR BELG SEASON CROPS OF
PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Dire Dawa

QUANTITY (IN '000 QUINTAL)

TYPE OF CROP	TOTAL QUANTITY	%	UREA	%	DAP	%	DAP + UREA	%
CEREALS	**	**	**	**	-	-	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	**	**	**	**	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	-	-	-	-

SECTION 2.

2.1 TOTAL AREA AND DISTRIBUTION OF AREA UNDER DIFFERENT FARM MANAGEMENT PRACTICE BY AREA SIZE GROUPS.

For the purpose of a systematic presentation of this report, total belg crop area have been classified in to seven area size groups. These groupings are:

- Group 1 - under 0.10 hectare
- Group 2 - 0.10 - 0.50 hectare
- Group 3 - 0.51 - 1.00 hectare
- Group 4 - 1.01 - 2.00 hectares
- Group 5 - 2.01 - 5.00 hectares
- Group 6 - 5.01 - 10.00 hectares
- Group 7 - 10.01 and above hectares

According to the survey results, in 1997/98(1990 E.C) it was estimated that a total of 822.40 thousand hectares was under belg season major crops. By these groupings, as presented in Figure 5 the highest belg crop area 67.01% fall in area size group 2 which followed by group 3, 16.32% and group 1, 10.86%(for details see Table 4.1 and Fig 5.)

Figure 5. Estimates of total area under belg season crops by area size groups of private holdings in Ethiopia, 1997/98(1990 E.C.)

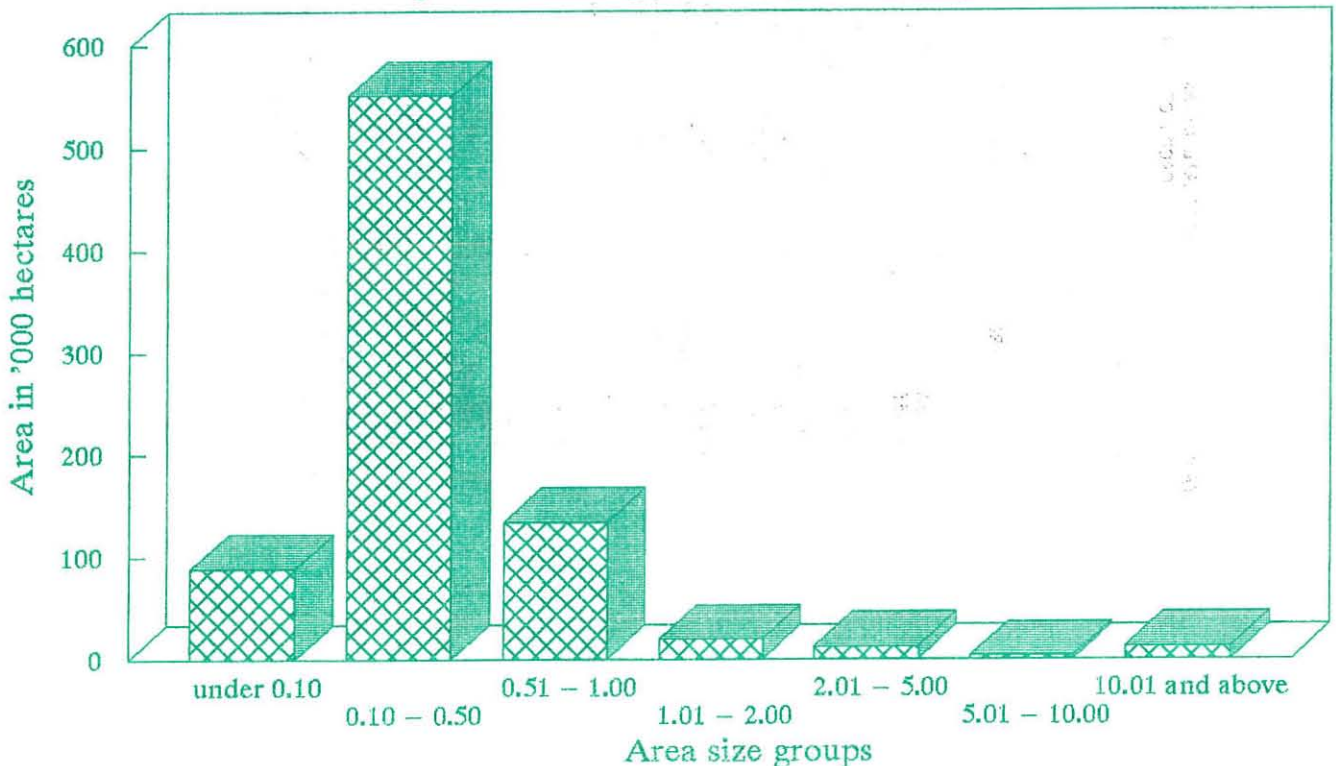


TABLE 4.1

ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

ETHIOPIA

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	70.14	475.36	122.92	16.48	10.38	3.04	11.78	710.07
Teff	3.67	42.92	11.62	1.72	-	-	-	59.92
Barley	20.12	151.82	37.84	4.91	**	-	-	215.08
Wheat	2.47	29.99	10.71	**	-	-	-	43.90
Maize	39.67	224.72	52.79	6.69	9.13	3.04	11.78	347.81
Sorghum	.53	14.31	**	2.35	.85	-	-	27.01
Millet	**	.42	**	**	-	-	-	.88
Oats	3.38	11.18	**	-	-	-	-	15.47
PULSES	18.85	71.62	11.26	**	2.13	.37	.95	107.94
Horse Beans	.79	**	**	-	**	-	-	4.10
Field Peas	3.46	9.50	**	**	-	-	-	16.77
Haricot Beans	11.93	40.58	2.01	**	1.48	.37	.95	57.54
Chick Peas	.70	6.39	1.95	**	.25	-	-	9.84
Lentils	1.81	11.88	**	1.00	-	-	-	19.02
Vetch	.16	**	-	-	-	-	-	**
OTHERS	.32	4.08	-	-	-	-	-	4.39
Neug	**	**	-	-	-	-	-	**
LinSeed	**	**	-	-	-	-	-	**
Rapeseed	**	-	-	-	-	-	-	**
Ground Nuts	.04	**	-	-	-	-	-	**
Sun Flower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Fenugreek	**	**	-	-	-	-	-	**
ALL CROPS	89.31	551.06	134.18	19.24	12.51	3.41	12.73	822.40

TABLE 4.2 ESTIMATES OF AREA BY SIZE OF HOLDING AND REGION FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

AREA (IN '000 HECTARES)

REGION	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
TIGRAY	.32	3.63	5.05	1.40	-	-	-	10.41
AFAR	.10	3.16	.57	-	-	-	-	3.83
AMHARA	25.97	120.80	33.29	5.66	-	-	-	185.71
OROMIYA	32.54	285.73	70.45	5.49	9.21	-	9.50	412.92
SOMALIE	.32	3.72	.77	-	-	-	-	4.80
BENISHANGUL-GUMUZ	.27	4.87	.44	-	-	.37	.95	6.91
S.N.N.P.	29.74	127.55	23.26	6.06	3.29	3.04	2.28	195.24
GAMBELLA	.02	.53	.10	.59	-	-	-	1.24
HARARI	.02	.72	.15	-	-	-	-	.89
ADDIS ABABA	-	.02	.04	.02	-	-	-	.09
DIRE DAWA	.03	.32	.03	-	-	-	-	.38
TOTAL AREA	89.32	551.04	134.17	19.23	12.51	3.42	12.73	822.41

TABLE 4.3 ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Tigray

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	**	3.49	5.05	1.40	-	-	-	10.21
Teff	-	**	**	-	-	-	-	**
Barley	**	1.39	**	-	-	-	-	1.75
Wheat	**	-	-	-	-	-	-	**
Maize	**	**	4.45	1.40	-	-	-	**
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
PULSES	**	**	-	-	-	-	-	**
Horse Beans	-	-	-	-	-	-	-	-
Field Peas	**	**	-	-	-	-	-	**
Haricot Beans	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-
Vetch	**	**	-	-	-	-	-	**
ALL CROPS	**	3.63	5.05	1.40	-	-	-	10.41

TABLE 4.4 ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Afar

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	**	2.26	.44	-	-	-	-	2.77
Teff	.04	1.86	.23	-	-	-	-	2.12
Barley	**	**	**	-	-	-	-	**
Wheat	**	.11	**	-	-	-	-	.19
Maize	-	**	**	-	-	-	-	**
Sorghum	-	**	-	-	-	-	-	**
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
PULSES	**	.89	**	-	-	-	-	1.06
Horse Beans	**	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-
Haricot Beans	.02	.42	**	-	-	-	-	.48
Chick Peas	.01	.47	**	-	-	-	-	.58
Lentils	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-
ALL CROPS	.10	3.15	.57	-	-	-	-	3.83

TABLE 4.5

ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Amhara

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	20.29	103.16	27.57	3.23	-	-	-	154.27
Teff	2.99	27.98	5.89	**	-	-	-	37.55
Barley	10.44	55.46	**	**	-	-	-	82.24
Wheat	1.48	4.81	**	-	-	-	-	8.80
Maize	2.79	11.91	.75	**	-	-	-	15.57
Sorghum	**	**	**	-	-	-	-	**
Millet	-	-	-	-	-	-	-	-
Oats	2.55	2.38	-	-	-	-	-	4.93
PULSES	5.58	17.62	5.72	**	-	-	-	31.34
Horse Beans	-	-	-	-	-	-	-	-
Field Peas	**	2.99	**	**	-	-	-	8.12
Haricot Beans	**	**	-	-	-	-	-	5.48
Chick Peas	**	5.03	**	**	-	-	-	7.21
Lentils	1.61	4.63	**	1.00	-	-	-	10.25
Vetch	**	**	-	-	-	-	-	**
OTHERS	**	**	-	-	-	-	-	**
Neug	**	-	-	-	-	-	-	**
LinSeed	**	**	-	-	-	-	-	**
Rapeseed	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Fenugreek	.01	-	-	-	-	-	-	.01
ALL CROPS	25.95	120.80	33.29	5.66	-	-	-	185.71

TABLE 4.6

ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Oromia

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	24.47	246.63	66.77	5.50	7.73	-	9.50	360.61
Teff	.29	9.40	**	-	-	-	-	12.87
Barley	7.09	88.54	23.51	2.44	-	-	-	121.58
Wheat	.87	24.29	7.90	**	-	-	-	33.61
Maize	15.18	109.83	30.45	2.51	7.73	-	9.50	175.20
Sorghum	**	**	**	-	-	-	-	**
Millet	**	**	-	-	-	-	-	**
Oats	.83	8.80	**	-	-	-	-	10.54
PULSES	7.90	35.34	3.69	-	1.48	-	-	48.40
Horse Beans	.74	**	**	-	-	-	-	3.46
Field Peas	.74	6.29	**	-	-	-	-	8.36
Haricot Beans	6.05	18.40	**	-	1.48	-	-	26.22
Chick Peas	**	**	**	-	-	-	-	**
Lentils	**	**	**	-	-	-	-	**
Vetch	**	**	-	-	-	-	-	**
OTHERS	.17	**	-	-	-	-	-	**
Neug	.13	3.34	-	-	-	-	-	-
LinSeed	**	**	-	-	-	-	-	**
Rapeseed	-	-	-	-	-	-	-	-
Ground Nuts	-	**	-	-	-	-	-	**
Sun Flower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Fenugreek	**	**	-	-	-	-	-	**
ALL CROPS	32.54	285.71	70.46	5.50	9.21	-	9.50	412.92

TABLE 4.7

ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Somale

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	.28	3.41	**	-	-	-	-	4.46
Teff	-	-	-	-	-	-	-	-
Barley	**	**	-	-	-	-	-	**
Wheat	**	**	-	-	-	-	-	**
Maize	.25	3.22	**	-	-	-	-	4.24
Sorghum	-	**	-	-	-	-	-	**
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	-	**
Neug	-	-	-	-	-	-	-	-
LinSeed	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Ground Nuts	**	**	-	-	-	-	-	**
Sun Flower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
ALL CROPS	.32	3.72	**	-	-	-	-	4.80

TABLE 4.8

ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Benshangul-Gumuz

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	**	.26	**	-	-	-	-	.28
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	**	.26	**	-	-	-	-	.28
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
PULSES	.26	4.61	.43	-	-	.37	.95	6.62
Horse Beans	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-
Haricot Beans	.26	4.61	.43	-	-	.37	.95	6.62
Chick Peas	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-
ALL CROPS	.26	4.87	.45	-	-	.37	.95	6.90

TABLE 4.9

ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

(S.N.N.P.R)

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	24.70	115.22	22.11	5.73	2.64	3.04	2.28	175.76
Teff	.36	2.78	1.95	1.03	-	-	-	6.12
Barley	2.44	6.26	**	**	**	-	-	9.18
Wheat	.06	.70	.26	**	-	-	-	1.21
Maize	21.27	97.40	16.17	2.07	1.39	3.04	2.28	143.64
Sorghum	.46	7.69	3.61	2.35	.85	-	-	14.96
Millet	**	.39	**	**	-	-	-	.65
Oats	-	-	-	-	-	-	-	-
PULSES	5.00	12.31	1.15	**	**	-	-	19.43
Horse Beans	**	**	-	-	**	-	-	**
Field Peas	**	**	-	-	-	-	-	**
Haricot Beans	4.87	11.67	1.10	**	-	-	-	17.86
Chick Peas	**	**	**	**	.25	-	-	**
Lentils	-	**	-	-	-	-	-	**
Vetch	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	-	**
Neug	**	**	-	-	-	-	-	**
LinSeed	-	-	-	-	-	-	-	-
Rapeseed	**	-	-	-	-	-	-	**
Ground Nuts	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Fenugreek	.01	.01	-	-	-	-	-	-
ALL CROPS	29.73	127.54	23.26	6.06	3.29	3.04	2.28	195.23

TABLE 4.10

ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Gambela

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	**	.53	.10	**	-	-	-	1.23
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	**	.52	.10	**	-	-	-	1.22
Sorghum	**	.01	-	-	-	-	-	**
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
ALL CROPS	**	.53	.10	**	-	-	-	1.23

TABLE 4.11 Harari

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	-	.01	-	-	-	-	-	.02
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	-	.01	-	-	-	-	-	.02
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
PULSES	.02	.71	.15	-	-	-	-	.87
Horse Beans	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-
Haricot Beans	.02	.71	.15	-	-	-	-	.87
Chick Peas	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-
ALL CROPS	.02	.72	.15	-	-	-	-	.89

TABLE 4.12

ESTIMATE OF AREA BY SIZE OF HOLDING FOR BELG SEASON
CROPS OF PRIVATE HOLDINGS IN ETHIOPIA
1997/98(1990 E.C.)

Addis Ababa

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	-	.02	.04	.02	-	-	-	**
Teff	-	-	-	-	-	-	-	-
Barley	-	.02	.04	.02	-	-	-	**
Wheat	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
ALL CROPS	-	.02	.04	.02	-	-	-	**

TABLE 4.13 Dire Dawa

AREA (IN '000 HECTARES)

TYPE OF CROP	SIZE OF HOLDING IN HECTARES							TOTAL
	UNDER 0.10	0.10-0.50	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	10.01 & ABOVE	
CEREALS	.03	.32	.03	-	-	-	-	.38
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	.03	.29	-	-	-	-	-	.32
Sorghum	-	.03	.03	-	-	-	-	.06
Millet	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-
ALL CROPS	.03	.32	.03	-	-	-	-	.38

2.2 THE DISTRIBUTION OF AREA UNDER DIFFERENT FARM MANAGEMENT PRACTICES BY AREA SIZE GROUPS.

According to the survey results, the total land area under different farm management practices was estimated to be 259.68 thousand hectares (i.e. 31.56% of the total belg crop area). Of this total, the highest 69.26% land area under improved farm management practices was exercised by area size group 2. Second and third by rank were area size groups 3 and 1, covering 13.29% and 12.34% respectively (for details see Summary Table F.).

SUMMARY TABLE F: ESTIMATES OF TOTAL AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES BY AREA SIZE GROUPS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/1998 (1990 E.C.)

Area size groups in hectar	Total belg crop area		Area under impr. farm management practices	
	'000 ha	%	'000 ha	%
Under 0.10	89.31	10.89	32.05	12.34
0.10-0.50	551.06	67.00	179.86	69.26
0.51-1.00	134.18	16.31	34.50	13.29
1.01-2.00	19.24	2.33	6.08	2.34
2.01-5.00	12.51	1.52	3.00	1.16
5.01-10.00	3.41	0.41	1.89	.73
10.01 & above	12.73	1.54	2.28	.88
TOTAL	822.44	100.00	259.66	100.00

TABLE 5.1 ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES BY SIZE OF HOLDINGS FOR BELG SEASON OF PRIVATE HOLDINGS IN ETHIOPIA 1997/98(1990 E.C.)

ETHIOPIA

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%		
UNDER 0.10	5.59	13.65	2.22	9.09	23.92	13.00	6.81	8.49	1.88	19.32	15.23	16.20	.32	3.09
0.10 - 0.50	30.75	75.11	19.15	78.42	122.69	66.70	55.96	69.79	5.37	55.19	61.36	65.26	7.27	70.11
0.51 - 1.00	3.94	9.62	2.82	11.55	25.97	14.12	14.91	18.60	**	**	9.04	9.61	1.77	17.07
1.01 - 2.00	**	**	**	**	4.78	2.60	2.50	3.12	**	**	1.82	1.94	**	**
2.01 - 5.00	-	-	-	-	2.77	1.51	-	-	-	-	**	**	**	**
5.01 -10.00	**	**	-	-	**	**	-	-	-	-	**	**	-	-
10.01 AND OVER	-	-	-	-	**	**	-	-	-	-	**	**	-	-
TOTAL	40.94	100.00	24.42	100.00	183.93	100.00	80.18	100.00	9.73	100.00	94.02	100.00	10.37	100.00

TABLE 5.2 ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES BY SIZE OF HOLDINGS FOR BELG SEASON OF PRIVATE HOLDINGS IN ETHIOPIA 1997/98(1990 E.C.)

Tigray

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%	
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%			
UNDER 0.10	.13	59.09	-	-	.03	3.85	-	-	-	-	-	.03	37.50	-	-
0.10 - 0.50	**	**	-	-	**	**	-	-	-	-	-	.05	62.50	-	-
0.51 - 1.00	-	-	-	-	**	**	-	-	.23	100.00	-	-	-	-	-
1.01 - 2.00	-	-	-	-	**	**	.47	100.00	-	-	-	-	-	-	-
2.01 - 5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.01 -10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01 AND OVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	.22	100.00	-	-	**	**	.47	100.00	.23	100.00	.08	100.00	-	-	-

63

TABLE 5.3 Afar

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%	
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%			
UNDER 0.10	-	-	-	-	**	**	-	-	-	-	-	**	**	-	-
0.10 - 0.50	.09	50.00	-	-	.14	70.00	-	-	-	-	-	.14	70.00	.06	100.00
0.51 - 1.00	.09	50.00	-	-	**	**	-	-	-	-	-	**	**	-	-
1.01 - 2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.01 - 5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.01 -10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01 AND OVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	.18	100.00	-	-	.20	100.00	-	-	-	-	.20	100.00	.06	100.00	-

TABLE 5.4 ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES BY SIZE OF HOLDINGS FOR BELG SEASON OF PRIVATE HOLDINGS IN ETHIOPIA 1997/98(1990 E.C.)

Amhara

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%		
UNDER 0.10	3.48	18.92	**	**	2.24	16.65	.21	4.29	-	-	2.03	23.91	-	-
0.10 - 0.50	14.19	77.16	.41	95.35	9.25	68.77	2.99	61.15	.07	100.00	6.19	72.91	.42	44.68
0.51 - 1.00	**	**	-	-	**	**	**	**	-	-	.27	3.18	**	**
1.01 - 2.00	-	-	-	-	**	**	**	**	-	-	-	-	**	**
2.01 - 5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.01 -10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01 AND OVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	18.39	100.00	.43	100.00	13.45	100.00	4.89	100.00	.07	100.00	8.49	100.00	**	**

64

TABLE 5.5 Oromia

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%		
UNDER 0.10	1.68	9.86	.21	3.44	7.63	8.69	1.16	2.34	.07	2.76	6.40	17.96	.24	3.30
0.10 - 0.50	13.78	80.87	4.46	73.11	59.80	68.09	35.73	71.96	1.31	51.57	22.76	63.88	6.05	83.22
0.51 - 1.00	**	**	1.43	23.44	16.54	18.83	11.83	23.83	1.16	45.67	3.55	9.96	**	**
1.01 - 2.00	-	-	-	-	**	**	**	**	-	-	.45	1.26	-	-
2.01 - 5.00	-	-	-	-	**	**	-	-	-	-	**	**	-	-
5.01 -10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01 AND OVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	17.04	100.00	6.10	100.00	87.82	100.00	49.65	100.00	2.54	100.00	35.63	100.00	7.27	100.00

TABLE 5.6 ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES BY SIZE OF HOLDINGS FOR BELG SEASON OF PRIVATE HOLDINGS IN ETHIOPIA 1997/98(1990 E.C.)

Somale

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%	
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%			
UNDER 0.10	-	-	.01	14.29	**	**	-	-	-	-	-	.05	6.17	-	-
0.10 - 0.50	.09	52.94	.06	85.71	**	**	-	-	-	-	-	.76	93.83	.06	100.00
0.51 - 1.00	.08	47.06	-	-	-	-	-	-	-	-	-	-	-	-	-
1.01 - 2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.01 - 5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.01 -10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01 AND OVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	.17	100.00	.07	100.00	**	**	-	-	-	-	-	.81	100.00	.06	100.00

65

TABLE 5.7 Benshangul-Gumuz

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%	
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%			
UNDER 0.10	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-
0.10 - 0.50	.31	44.93	-	-	.79	100.00	-	-	-	-	-	.79	100.00	-	-
0.51 - 1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.01 - 2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.01 - 5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.01 -10.00	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01 AND OVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	.69	100.00	-	-	.79	100.00	-	-	-	-	-	.79	100.00	-	-

TABLE 5.8 ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES BY SIZE OF HOLDINGS FOR BELG SEASON OF PRIVATE HOLDINGS IN ETHIOPIA 1997/98(1990 E.C.)

(S.N.N.P.R)

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%		
UNDER 0.10	.26	6.36	1.98	11.12	13.92	17.53	5.43	21.58	1.81	27.51	6.68	14.01	.07	3.45
0.10 - 0.50	2.07	50.61	14.20	79.78	51.57	64.94	17.24	68.52	3.96	60.18	30.37	63.71	.68	33.50
0.51 - 1.00	1.47	35.94	1.39	7.81	7.61	9.58	1.86	7.39	**	**	5.13	10.76	.71	34.98
1.01 - 2.00	.29	7.09	.23	1.29	2.20	2.77	.63	2.50	**	**	1.38	2.89	.34	16.75
2.01 - 5.00	-	-	-	-	**	**	**	**	-	-	.31	.65	**	**
5.01 -10.00	-	-	-	-	**	**	**	**	-	-	1.52	3.19	-	-
10.01 AND OVER	-	-	-	-	**	**	**	**	-	-	2.28	4.78	-	-
TOTAL	4.09	100.00	17.80	100.00	79.41	100.00	25.16	100.00	6.58	100.00	47.67	100.00	2.03	100.00

99

TABLE 5.9 Gambela

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%		
UNDER 0.10	-	-	-	-	-	-	-	-	-	-	-	-	.01	100.00
0.10 - 0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.51 - 1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.01 - 2.00	-	-	-	-	.27	100.00	-	-	.27	100.00	-	-	-	-
2.01 - 5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.01 -10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01 AND OVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	.27	100.00	-	-	.27	100.00	-	-	.01	100.00

TABLE 5.12 ESTIMATES OF AREA UNDER IMPROVED FARM MANAGEMENT PRACTICES BY SIZE OF HOLDINGS FOR BELG SEASON OF PRIVATE HOLDINGS IN ETHIOPIA 1997/98(1990 E.C.)

Dire Dawa

AREA (IN '000 HECTARES)

SIZE OF HOLDING (IN HECTARES)	IRRIGATED AREA	%	IMPROVED SEEDS APPLIED AREA	%	FERTILIZER APPLIED AREA								PESTICIDES APPLIED AREA	%
					TOTAL	%	NATURAL	%	COMMER.	%	NAT + COM	%		
UNDER 0.10	.02	12.50	-	-	.01	6.25	-	-	-	-	.01	6.25	-	-
0.10 - 0.50	.14	87.50	.01	100.00	.15	93.75	-	-	-	-	.15	93.75	-	-
0.51 - 1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.01 - 2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.01 - 5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.01 -10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01 AND OVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	.16	100.00	.01	100.00	.16	100.00	-	-	-	-	.16	100.00	-	-

SECTION 3.

3.1 TOTAL NUMBER OF BELG CROP PRODUCING HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE.

For the purpose of preparing this report belg crop producing holders' ages have been categorized in to nine groups, as follows:-

The group categories by age

group 1	-	under 18 years
group 2	-	18 - 20 years
group 3	-	21 - 24 years
group 4	-	25 - 29 years
group 5	-	30 - 39 years
group 6	-	40 - 49 years
group 7	-	50 - 59 years
group 8	-	60 years & above
group 9	-	not stated

Based on the survey results, a total of 5.32 million holders were engaged in the over all belg season agricultural activities in 1997/98 (1990 E.C.) belg season. As mentioned above, these holders are categorized in to nine age groups based on the age of the holder. Accordingly, the highest number 1,381,750 (25.95%) of holders were estimated to fall in the age group 30 - 39. The second (23.34%) and third (16.47%) highest number of holders fall in the age groups 40 - 49 and 60 and above , respectively.

Moreover , it was estimated that a total of 549,040 belg crop producing holders (about 10.31% of the total) reported the use of improved farm management practices. Among belg producing holders the highest number of holders 57.47% reported to use irrigation while 31.38% and 11.15% of them reported to use improved seeds and pesticides, respectively (see summary Table G and Table 7.1)

SUMMARY TABLE G: ESTIMATES OF TOTAL NUMBER OF BELG CROP PRODUCING HOLDERS REPORTING USE OF FARM MANAGEMENT PRACTICES BY AGE FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/1998 (1990 E.C.)

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF BELG CROP PRODUCING HOLDERS IN		NUMBER OF BELG CROP PRODUCING HOLDERS REPORTING USE OF FARM MANAGEMENT PRACTICES	
	'000	%	'000	%
UNDER 18	20.55	0.39	3.98	0.72
18 - 20	100.28	1.88	13.34	2.43
21 - 24	237.03	4.45	21.54	3.92
25 - 29	689.35	12.95	69.60	12.68
30 - 39	1381.75	25.95	150.50	27.41
40 - 49	1242.51	23.34	114.45	20.85
50 - 59	772.68	14.51	72.94	13.29
60 & ABOVE	876.73	16.47	101.21	18.43
NOT STATED	3.72	0.07	1.48	0.27
TOTAL	5324.60	100.00	549.04	100.00

TABLE 6.1 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

ETHIOPIA

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		%
UNDER 18	6.35	1.16	-	-	14.20	3.30	20.55	3.39
18 - 20	17.81	3.27	-	-	82.47	1.73	100.28	1.88
21 - 24	43.39	7.96	-	-	193.64	4.05	237.03	4.45
25 - 29	93.27	17.11	-	-	596.08	12.48	689.35	12.95
30 - 39	140.78	25.83	**	**	1,240.19	25.96	1,381.75	25.95
40 - 49	98.20	18.01	2.10	72.92	1,142.21	23.91	1,242.51	23.34
50 - 59	65.51	12.02	-	-	707.17	14.80	772.68	14.51
60 & ABOVE	79.41	14.57	-	-	797.32	16.69	876.73	16.47
NOT STATED	**	**	-	-	3.31	.07	3.72	.07
TOTAL	545.13	100.00	2.88	100.00	4,776.59	100.00	5,324.60	100.00

TABLE 6.2 ESTIMATE OF TOTAL NUMBER OF HOLDERS BY TYPE OF HOLDING AND REGION DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

NUMBER IN THOUSANDS

REGION	NUMBER OF HOLDERS						TOTAL NUMBER OF HOLDERS	%
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		
TIGRAY	5.05	.93	-	-	49.14	1.03	54.19	1.02
AFAR	1.99	.37	-	-	16.20	.34	18.19	.34
AMHARA	140.29	25.74	-	-	1,022.40	21.40	1,162.69	21.84
OROMIYA	219.78	40.32	2.88	100.00	2,147.78	44.96	2,370.44	44.52
SOMALIE	6.61	1.21	-	-	47.74	1.00	54.35	1.02
BENSHANGUL-GUMUZ	5.29	.97	-	-	39.26	.82	44.55	.84
S.N.N.P.	157.71	28.93	-	-	1,429.51	29.93	1,587.22	29.81
GAMBELA	8.04	1.47	-	-	18.22	.38	26.26	.49
HARARI	.19	.03	-	-	3.84	.08	4.03	.08
ADDIS ABABA	.02	-	-	-	.11	-	.13	-
DIRE DAWA	.16	.03	-	-	2.38	.05	2.54	.05
TOTAL N ^o OF HOLDERS	545.13	100.00	2.88	100.00	4,776.58	100.00	5,324.59	100.00

TABLE 6.3 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Tigray

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	%
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		
UNDER 18	**	**	-	-	-	-	**	**
18 - 20	-	-	-	-	**	**	**	**
21 - 24	**	**	-	-	**	**	**	**
25 - 29	-	-	-	-	4.94	10.05	4.94	9.12
30 - 39	**	**	-	-	12.23	24.88	12.85	23.71
40 - 49	**	**	-	-	13.36	27.18	14.61	26.96
50 - 59	.64	12.67	-	-	5.45	11.09	6.09	11.24
60 & ABOVE	1.74	34.46	-	-	11.77	23.95	13.51	24.91
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	5.05	100.00	-	-	49.15	100.00	54.20	100.00

TABLE 6.4 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Afar

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		%
UNDER 18	-	-	-	-	**	**	**	**
18 - 20	-	-	-	-	**	**	**	**
21 - 24	**	**	-	-	.69	4.25	.83	4.56
25 - 29	**	**	-	-	1.03	6.35	1.13	6.15
30 - 39	**	**	-	-	3.25	20.04	3.54	19.45
40 - 49	**	**	-	-	4.56	28.11	5.19	28.52
50 - 59	.42	21.11	-	-	2.75	16.95	3.17	17.42
60 & ABOVE	**	**	-	-	3.44	21.21	3.85	21.15
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	1.99	100.00	-	-	16.22	100.00	18.21	100.00

TABLE 6.5 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Amhara

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	%
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		
UNDER 18	**	**	-	-	**	**	**	**
18 - 20	3.88	2.77	-	-	5.38	.53	9.26	.80
21 - 24	4.36	3.11	-	-	37.21	3.64	41.57	3.58
25 - 29	24.27	17.30	-	-	116.05	11.35	140.32	12.07
30 - 39	29.50	21.03	-	-	218.58	21.38	248.08	21.34
40 - 49	27.13	19.34	-	-	273.64	26.76	300.77	25.87
50 - 59	19.94	14.21	-	-	167.22	16.36	187.16	16.10
60 & ABOVE	30.43	21.69	-	-	203.47	19.90	233.90	20.12
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	140.29	100.00	-	-	1,022.41	100.00	1,162.70	100.00

75



TABLE 6.6 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Oromia

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	%
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		
UNDER 18	**	**	-	-	5.28	.25	6.56	.28
18 - 20	8.76	3.99	-	-	41.57	1.94	50.33	2.12
21 - 24	18.88	8.59	-	-	87.31	4.07	106.19	4.48
25 - 29	30.86	14.04	-	-	267.26	12.44	298.12	12.58
30 - 39	58.65	26.68	**	**	524.26	24.41	583.69	24.62
40 - 49	39.65	18.04	2.10	72.92	511.69	23.82	553.44	23.35
50 - 59	28.06	12.77	-	-	336.07	15.65	364.13	15.36
60 & ABOVE	33.24	15.12	-	-	371.39	17.29	404.63	17.07
NOT STATED	**	**	-	-	**	**	**	**
TOTAL	219.79	100.00	2.88	100.00	2,147.78	100.00	2,370.45	100.00

TABLE 6.7 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
 BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Somale

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		%
UNDER 18	-	-	-	-	.15	.31	.15	.28
18 - 20	**	**	-	-	.73	1.53	.97	1.80
21 - 24	**	**	-	-	1.13	2.37	1.25	2.30
25 - 29	**	**	-	-	3.99	8.36	4.44	8.17
30 - 39	2.83	42.88	-	-	13.48	28.24	16.31	30.00
40 - 49	.99	15.00	-	-	12.63	26.46	13.62	25.07
50 - 59	.81	12.27	-	-	9.35	19.59	10.16	18.67
60 & ABOVE	1.16	17.58	-	-	6.28	13.15	7.44	13.70
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	6.60	100.00	-	-	47.74	100.00	54.34	100.00

TABLE 6.8 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Benshangul-Gumuz

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		%
UNDER 18	-	-	-	-	-	-	-	-
18 - 20	**	**	-	-	.54	1.38	.75	1.71
21 - 24	.51	9.62	-	-	2.08	5.30	2.59	5.79
25 - 29	**	**	-	-	4.41	11.23	5.21	11.69
30 - 39	1.61	30.38	-	-	8.57	21.83	10.18	22.85
40 - 49	1.32	24.91	-	-	13.30	33.88	14.62	32.82
50 - 59	.29	5.47	-	-	5.09	12.96	5.38	12.08
60 & ABOVE	.56	10.57	-	-	5.27	13.42	5.83	13.06
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	5.30	100.00	-	-	39.26	100.00	44.56	100.00

TABLE 6.9 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
 BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

(S.N.N.P.R)

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		%
UNDER 18	**	**	-	-	7.75	.54	11.86	.75
18 - 20	4.36	2.76	-	-	32.36	2.26	36.72	2.31
21 - 24	17.24	10.93	-	-	62.87	4.40	80.11	5.05
25 - 29	34.70	22.00	-	-	194.78	13.63	229.48	14.46
30 - 39	45.31	28.73	-	-	452.97	31.69	498.28	31.39
40 - 49	25.87	16.40	-	-	306.70	21.45	332.57	20.95
50 - 59	14.87	9.43	-	-	178.01	12.45	192.88	12.15
60 & ABOVE	11.25	7.13	-	-	193.72	13.55	204.97	12.91
NOT STATED	-	-	-	-	**	**	**	**
TOTAL	157.71	100.00	-	-	1,429.52	100.00	1,587.23	100.00

TABLE 6.10 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Gambela

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	%
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		
UNDER 18	.03	.37	-	-	-	-	**	**
18 - 20	.35	4.35	-	-	1.08	5.92	1.43	5.45
21 - 24	1.49	18.53	-	-	1.02	5.60	2.51	9.56
25 - 29	1.93	24.00	-	-	2.91	15.96	4.84	18.39
30 - 39	1.91	23.76	-	-	4.86	26.66	6.77	25.78
40 - 49	1.34	16.67	-	-	4.75	26.06	6.09	23.23
50 - 59	.44	5.47	-	-	2.44	13.38	2.88	10.93
60 & ABOVE	.55	6.84	-	-	1.17	6.42	1.72	6.55
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	8.04	100.00	-	-	18.23	100.00	26.27	100.00

TABLE 6.11 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Harari

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		%
UNDER 18	-	-	-	-	-	-	-	-
18 - 20	-	-	-	-	.05	1.30	.05	1.24
21 - 24	-	-	-	-	.24	6.25	.24	5.96
25 - 29	.10	52.63	-	-	.48	12.50	.58	14.39
30 - 39	.05	26.32	-	-	1.20	31.25	1.25	31.02
40 - 49	-	-	-	-	.89	23.18	.89	22.08
50 - 59	.04	21.05	-	-	.48	12.50	.52	12.90
60 & ABOVE	-	-	-	-	.50	13.02	.50	12.41
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	.19	100.00	-	-	3.84	100.00	4.03	100.00

TABLE 6.12 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Addis Ababa

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	%
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		
UNDER 18	-	-	-	-	-	-	-	-
18 - 20	-	-	-	-	-	-	-	-
21 - 24	-	-	-	-	.01	9.09	.01	7.69
25 - 29	.01	33.33	-	-	.01	9.09	.02	7.69
30 - 39	.01	33.33	-	-	.01	9.09	.02	15.38
40 - 49	-	-	-	-	.02	18.18	.02	15.38
50 - 59	-	-	-	-	.02	18.18	.02	15.38
60 & ABOVE	.01	33.33	-	-	.04	36.36	.05	38.46
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	.03	100.00	-	-	.11	100.00	.14	100.00

TABLE 6.13 ESTIMATES OF TOTAL NUMBER OF HOLDERS BY AGE OF HOLDER AND TYPE OF HOLDING DURING 1996/97(1989 E.C.)
BELG CROP PRODUCTION SEASON FOR PRIVATE HOLDINGS IN ETHIOPIA

Dire Dawa

NUMBER IN THOUSANDS

AGE OF HOLDERS IN YEARS	TOTAL NUMBER OF HOLDERS ENGAGED						TOTAL NUMBER OF HOLDERS	%
	WITH CROP ONLY	%	WITH LIVESTOCK ONLY	%	WITH CROP & LIVESTOCK	%		
UNDER 18	-	-	-	-	-	-	-	-
18 - 20	-	-	-	-	.02	.84	.02	79
21 - 24	-	-	-	-	.09	3.78	.09	3.54
25 - 29	.06	37.50	-	-	.23	9.66	.29	11.42
30 - 39	-	-	-	-	.78	32.77	.78	30.71
40 - 49	.02	12.50	-	-	.67	28.15	.69	27.17
50 - 59	.02	12.50	-	-	.30	12.61	.32	12.60
60 & ABOVE	.06	37.50	-	-	.29	12.18	.35	13.78
NOT STATED	-	-	-	-	-	-	-	-
TOTAL	.16	100.00	-	-	2.38	100.00	2.54	100.00

TABLE 7. ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

National

NUMBER IN THOUSANDS

AGE OF HOLDERS/ IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	**	1.97	-	-	-	-
18 - 20	5.03	**	-	-	-	2.05
21 - 24	11.81	7.54	-	-	-	2.19
25 - 29	37.88	22.95	-	-	-	8.77
30 - 39	87.13	51.71	-	-	-	11.66
40 - 49	66.26	36.05	-	-	-	12.14
50 - 59	45.72	21.66	-	-	-	5.56
60 & ABOVE	58.83	23.55	-	-	-	18.83
NOT STATED	**	**	-	-	-	-
TOTAL	315.55	172.29	-	-	-	61.20

TABLE 7.1 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Tigray

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	**	-	-	-	-	-
18 - 20	**	-	-	-	-	-
21 - 24	**	-	-	-	-	-
25 - 29	1.19	.18	-	-	-	-
30 - 39	2.31	-	-	-	-	-
40 - 49	3.64	.18	-	-	-	-
50 - 59	2.11	-	-	-	-	-
60 & ABOVE	5.27	-	-	-	-	-
NOT STATED	-	-	-	-	-	-
TOTAL	15.62	.36	-	-	-	-

TABLE 7.2 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Afar

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	-	-	-	-	-	-
18 - 20	-	-	-	-	-	-
21 - 24	-	-	-	-	-	.10
25 - 29	.03	-	-	-	-	.06
30 - 39	.14	-	-	-	-	.13
40 - 49	.07	-	-	-	-	.26
50 - 59	.03	-	-	-	-	.03
60 & ABOVE	.14	-	-	-	-	.08
NOT STATED	-	-	-	-	-	-
TOTAL	.41	-	-	-	-	.66

TABLE 7.3 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Amhara

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	1.87	-	-	-	-	-
18 - 20	1.31	-	-	-	-	.12
21 - 24	2.55	-	-	-	-	-
25 - 29	16.31	.33	-	-	-	.83
30 - 39	37.02	**	-	-	-	.54
40 - 49	29.11	-	-	-	-	-
50 - 59	20.66	.88	-	-	-	-
60 & ABOVE	27.77	-	-	-	-	.42
NOT STATED	-	-	-	-	-	-
TOTAL	136.60	2.73	-	-	-	1.91

TABLE 7.4 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Oromia

NUMBER IN THOUSANDS

AGE OF HOLDERS/ IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	-	-	-	-	-	-
18 - 20	**	2.51	-	-	-	1.69
21 - 24	8.15	1.12	-	-	-	1.85
25 - 29	16.85	3.36	-	-	-	6.69
30 - 39	38.98	5.87	-	-	-	8.39
40 - 49	27.70	6.28	-	-	-	10.29
50 - 59	18.91	3.47	-	-	-	3.75
60 & ABOVE	23.19	3.98	-	-	-	18.05
NOT STATED	**	.60	-	-	-	-
TOTAL	137.64	27.19	-	-	-	50.71

TABLE 7.5 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Somale

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	-	-	-	-	-	-
18 - 20	-	-	-	-	-	.02
21 - 24	-	-	-	-	-	-
25 - 29	**	.15	-	-	-	-
30 - 39	**	.02	-	-	-	.16
40 - 49	**	.02	-	-	-	-
50 - 59	**	-	-	-	-	-
60 & ABOVE	**	.31	-	-	-	-
NOT STATED	**	-	-	-	-	-
TOTAL	**	.50	-	-	-	.18

TABLE 7.6 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Benshangul-Gumuz

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	-	-	-	-	-	-
18 - 20	**	-	-	-	-	-
21 - 24	**	.07	-	-	-	-
25 - 29	.66	-	-	-	-	-
30 - 39	1.21	-	-	-	-	.02
40 - 49	1.58	-	-	-	-	-
50 - 59	.86	-	-	-	-	.07
60 & ABOVE	1.10	-	-	-	-	-
NOT STATED	-	-	-	-	-	-
TOTAL	5.91	.07	-	-	-	.09

TABLE 7.7 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

(S.N.N.P.R)

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	-	1.97	-	-	-	-
18 - 20	**	**	-	-	-	.23
21 - 24	**	**	-	-	-	.24
25 - 29	2.40	18.82	-	-	-	1.20
30 - 39	6.42	44.10	-	-	-	2.43
40 - 49	2.87	29.37	-	-	-	1.49
50 - 59	2.58	17.21	-	-	-	1.71
60 & ABOVE	.72	19.20	-	-	-	.26
NOT STATED	-	-	-	-	-	-
TOTAL	15.39	140.75	-	-	-	7.56

TABLE 7.8 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Gambela

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	-	-	-	-	-	-
18 - 20	-	-	-	-	-	-
21 - 24	-	-	-	-	-	-
25 - 29	-	.11	-	-	-	-
30 - 39	-	.16	-	-	-	-
40 - 49	-	.22	-	-	-	.11
50 - 59	-	.11	-	-	-	-
60 & ABOVE	-	.03	-	-	-	.03
NOT STATED	-	-	-	-	-	-
TOTAL	-	.63	-	-	-	.14

TABLE 7.9 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Harari

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	-	-	-	-	-	-
18 - 20	-	-	-	-	-	-
21 - 24	-	-	-	-	-	-
25 - 29	.02	-	-	-	-	-
30 - 39	.02	.02	-	-	-	-
40 - 49	.05	-	-	-	-	-
50 - 59	.02	-	-	-	-	-
60 & ABOVE	-	.03	-	-	-	-
NOT STATED	-	-	-	-	-	-
TOTAL	.11	.05	-	-	-	-

TABLE 7.10 ESTIMATE OF TOTAL NUMBER OF HOLDERS REPORTING USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE OF HOLDERS FOR BELG SEASON CROPS OF PRIVATE HOLDINGS IN ETHIOPIA, 1997/98(1990 E.C.)

Dire Dawa

NUMBER IN THOUSANDS

AGE OF HOLDERS' IN YEARS	NUMBER OF HOLDERS' REPORTING USE OF					
	IRRIGATION	IMPROVED SEEDS	NATURAL FERTILIZERS	COMMER. FERTILIZERS	BOTH NAT + COM	PESTICIDES
UNDER 18	-	-	-	-	-	-
18 - 20	-	-	-	-	-	-
21 - 24	**	.02	-	-	-	-
25 - 29	.14	-	-	-	-	-
30 - 39	.20	.02	-	-	-	-
40 - 49	.49	-	-	-	-	-
50 - 59	.17	-	-	-	-	-
60 & ABOVE	.17	-	-	-	-	-
NOT STATED	-	-	-	-	-	-
TOTAL	1.19	.04	-	-	-	-

APPENDIX I
ESTIMATION PROCEDURES OF TOTAL AND
SAMPLING ERROR

APPENDIX I - ESTIMATION PROCEDURES OF TOTAL AND SAMPLING ERRORS

The following formula are used to estimate total area of land under specific crop where a certain agricultural input was applied on in a given stratum.

Note:- All information on belg season agricultural activities were collected using subjective methods, by interviewing each holder in the sample 25 agricultural households. Hence the data on area for major belg season crops were usually reported in local units. There fore one has to note that before applying the estimation procedures defined here below, the reported area under a specific crop where a certain agricultural input was applied has to be converted in to standard units using conversion equivalents.

1. Estimating Area

$$\hat{A}_h = \sum_{i=1}^{n_h} W_{hi} a_{hi}$$

in which

$$W_{hi} = \frac{N_h M_{hi}}{n_h N_{hi} m_{hi}}$$

is the weight

Where

h represents the stratum.

n_h is the total number of EAs selected in h^{th} stratum.

N_h is the measure of size of the h^{th} stratum obtained from the sampling frame.

N_{ih} is the measure of size of the i^{th} sample EA in the h^{th} stratum obtained from the sampling frame.

M_{hi} is the total number of agricultural households of the i^{th} sample EA in the h^{th} stratum obtained from households listing of the survey

m_{hi} is number of sampled agricultural households of the i^{th} sample EA in the h^{th} stratum.

a_{hi} is the sample total of area values in the i^{th} EA in the h^{th} stratum for the specific agricultural input for the specific crop.

A_h is estimate of total area under specific crop where a certain agricultural input was used in the h^{th} stratum.

2. To Estimate Quantity of Fertilizer

$$\hat{Q}_h = \sum_{i=1}^{n_h} W_{hi} q_{hi}$$

in which

$$W_{hi} = \frac{N_h M_{hi}}{n_h N_{hi} m_{hi}}$$

is the weight given above.

where

Q_h is estimate of total quantity of a specific fertilizer applied for a specific crop land in the h^{th} stratum.

q_{hi} is the sample total of quantity of a specific fertilizer applied for a specific crop land in the i^{th} EA in the h^{th} stratum.

3. Estimating Sampling Variance

Sampling Variance of estimate of stratum total of area for a specific crop where a certain agricultural input used and quantity of a certain fertilizer are estimated by the following formulas respectively.

$$\text{var}(\hat{A}_h) = \frac{n_h}{n_h - 1} \left[\sum_{i=1}^{n_h} \hat{A}_{hi}^2 - \frac{\hat{A}_h^2}{n_h} \right]$$

In estimating sampling variance by the above formula, selection of EAs within a stratum is assumed to be with replacement. By so doing the variance estimate may be slightly over estimated but it greatly simplifies the estimation procedures. Further more the finite population correction (fpc) is ignored in the formula. This is due to the fact that its effect is negligible

4. Estimating Coefficient of Variance

Coefficient of Variation (CV) of estimate of stratum total area and quantity are given by:

$$CV(\hat{A}_h) = \frac{\sqrt{\text{var}(\hat{A}_h)}}{\hat{A}_h} \times 100\%$$

$$CV(\hat{Q}_h) = \frac{\sqrt{\text{VAR}(\hat{Q}_h)}}{\hat{Q}_h} \times 100\%$$

Regional or national estimates of the total characteristics and sampling variance are obtained by aggregating the respective stratum totals.

APPENDIX II
STANDARD ERROR AND COEFFICIENT OF
VARIATION FOR ESTIMATES

TABLE 1.1 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.) ETHIOPIA

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	710.07	38.40	5.41	37.34	6.24	16.71	24.06	5.52	22.93	165.62	17.31	10.45	9.58	2.66	27.75
Teff	59.92	10.27	17.14	5.52	2.17	39.29	**	**	**	6.01	1.38	22.91	3.73	1.84	49.47
Barley	215.08	23.32	10.84	1.43	0.66	46.11	-	-	-	47.16	10.60	22.49	**	**	**
Wheat	43.90	9.23	21.02	**	**	**	1.93	0.87	45.16	13.54	3.33	24.60	1.31	0.50	38.47
Maize	347.81	27.86	8.01	28.18	5.21	18.48	22.08	5.56	25.17	90.29	11.87	13.14	1.42	0.56	39.67
Sorghum	27.01	7.03	26.02	**	**	**	-	-	-	4.50	1.23	27.30	**	**	**
Millet	0.88	0.31	35.04	-	-	-	-	-	-	**	**	**	**	**	**
Oats	15.47	3.09	19.98	**	**	**	**	**	**	3.95	1.28	32.40	**	**	**
Pulses	107.94	12.61	11.69	**	**	**	-	-	-	18.30	3.76	20.56	**	**	**
Horsebeans	4.10	1.75	42.71	-	-	-	-	-	-	**	**	**	-	-	-
Field Peas	16.77	4.50	26.83	-	-	-	**	**	**	**	**	**	-	-	-
Haricotbeans	57.54	7.73	13.43	**	**	**	**	**	**	16.71	3.70	22.17	**	**	**
Chick Peas	9.84	3.56	36.21	**	**	**	-	-	-	**	**	**	**	**	**
Lentils	19.02	6.25	32.86	-	-	-	-	-	-	**	**	**	-	-	-
Vetch	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Others	4.40	2.09	47.56	-	-	-	-	-	-	-	-	-	-	-	-
Neug	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	822.41	43.18	5.25	40.94	6.53	15.96	24.43	5.72	23.40	183.93	17.92	9.74	10.37	2.71	26.11

TABLE 1.2 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.)
TIGRAY

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	10.21	4.59	44.90	**	**	**	-	-	-	**	**	**	-	-	-
Teff	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Barley	1.75	0.76	43.39	**	**	**	-	-	-	**	**	**	-	-	-
Wheat	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	10.41	4.58	43.99	**	**	**	-	-	-	**	**	**	-	-	-

TABLE 1.3 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.)
AFAR

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	2.77	0.46	16.63	0.18	0.01	3.52	-	-	-	0.17	0.08	46.61	**	**	**
Teff	2.12	0.48	22.52	0.06	0.01	13.83	-	-	-	0.14	0.06	41.32	**	**	**
Barley	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	0.19	0.07	38.27	-	-	-	-	-	-	**	**	**	-	-	-
Maize	**	**	**	0.12	0.01	6.77	-	-	-	-	-	-	-	-	-
Sorghum	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	**	**	**	-	-	-
Pulses	1.06	0.31	28.86	-	-	-	-	-	-	-	-	-	0.04	0.02	49.39
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	**	**	**	-	-	-
Haricotbeans	0.48	0.18	37.49	-	-	-	-	-	-	**	**	**	-	-	-
Chick Peas	0.58	0.16	28.26	-	-	-	-	-	-	-	-	-	0.04	0.02	49.39
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	3.83	0.56	14.71	0.18	0.01	3.52	-	-	-	0.19	0.09	45.36	**	**	**

TABLE 1.4 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.) AMHARA

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	154.27	18.49	11.98	15.41	3.91	25.40	0.42	0.06	14.89	12.90	4.01	31.12	**	**	**
Teff	37.55	8.75	23.32	5.25	2.16	41.25	—	—	—	2.74	1.18	43.00	**	**	**
Barley	82.24	17.22	20.93	**	**	**	—	—	—	**	**	**	—	—	—
Wheat	8.80	2.43	27.57	**	**	**	—	—	—	**	**	**	—	—	—
Maize	15.57	3.38	21.69	6.76	1.94	28.64	0.42	0.06	14.89	1.45	0.68	46.91	—	—	—
Sorghum	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
Millet	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oats	4.93	1.49	30.19	**	**	**	—	—	—	**	**	**	—	—	—
Pulses	31.34	7.62	24.32	**	**	**	—	—	—	**	**	**	**	**	**
Horsebeans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Peas	8.12	3.78	46.58	—	—	—	—	—	—	**	**	**	—	—	—
Haricotbeans	5.48	2.73	49.80	**	**	**	—	—	—	**	**	**	—	—	—
Chick Peas	7.21	3.33	46.21	**	**	**	—	—	—	**	**	**	**	**	**
Lentils	10.25	4.18	40.80	—	—	—	—	—	—	—	—	—	—	—	—
Vetch	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Others	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Neug	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sesame	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fenugreek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All Crops	185.71	22.44	12.09	18.39	4.34	23.60	0.42	0.06	14.89	13.45	4.19	31.18	**	**	**

TABLE 1.5 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.) OROMIA

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	360.60	28.79	7.98	16.67	4.70	27.69	6.05	2.17	35.85	82.73	13.51	16.32	7.28	2.60	35.74
Teff	12.87	5.08	39.51	—	—	—	—	—	—	1.17	0.51	43.67	**	**	**
Barley	121.58	15.59	12.82	**	**	**	—	—	—	37.00	9.82	26.55	**	**	**
Wheat	33.61	8.90	26.47	**	**	**	1.87	0.87	46.36	12.74	3.32	26.05	1.24	0.50	40.61
Maize	175.20	22.40	12.78	16.84	4.67	27.74	**	**	**	28.26	6.51	23.03	1.15	0.55	47.78
Sorghum	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Millet	**	**	**	—	—	—	—	—	—	**	**	**	**	**	**
Oats	10.54	2.71	25.70	—	—	—	—	—	—	3.52	1.22	34.76	**	**	**
Pulses	48.40	8.92	18.42	**	**	**	**	**	**	5.07	1.77	34.88	—	—	—
Horsebeans	3.46	1.69	48.97	—	—	—	—	—	—	**	**	**	—	—	—
Field Peas	8.36	2.43	29.06	—	—	—	—	—	—	**	**	**	—	—	—
Haricotbeans	26.22	5.60	21.34	—	—	—	**	**	**	4.21	1.70	40.29	—	—	—
Chick Peas	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Lentils	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
Vetch	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Others	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Neug	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sesame	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fenugreek	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
All Crops	412.92	32.04	7.76	17.04	4.69	27.51	6.11	2.15	35.26	87.81	13.68	15.58	7.28	2.60	35.74

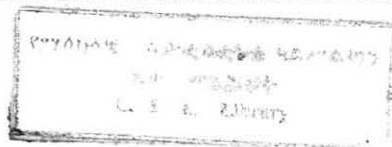


TABLE 1.6 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1996/97(1989 E.C.) SOMALIE

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	4.45	1.53	34.37	**	**	**	**	**	**	**	**	**	**	**	**
Teff	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barley	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Wheat	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Maize	4.24	1.48	34.83	—	—	—	**	**	**	**	**	**	**	**	**
Sorghum	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Millet	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oats	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Horsebeans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Peas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haricotbeans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chick Peas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lentils	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vetch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Neug	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sesame	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fenugreek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All Crops	4.80	1.56	32.52	**	**	**	**	**	**	**	**	**	**	**	**

TABLE 1.7 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.)
BENSHANGUL – GUMEZ

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	0.28	0.12	43.18	0.23	0.11	47.03	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	0.23	0.11	47.03	-	-	-	-	-	-	-	-	-
Maize	0.28	0.12	43.18	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	6.62	2.47	37.31	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	6.62	2.47	37.31	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	6.91	2.46	35.68	**	**	**	-	-	-	-	-	-	-	-	-

TABLE 1.8 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.) S.N.N.P.R

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	175.75	16.74	9.52	4.01	1.22	30.32	17.51	5.07	28.97	67.76	10.02	14.79	1.95	0.53	26.99
Teff	6.12	1.08	17.66	**	**	**	**	**	**	1.96	0.49	25.10	1.30	0.44	33.72
Barley	9.18	1.97	21.49	-	-	-	-	-	-	2.32	0.58	25.19	**	**	**
Wheat	1.21	0.34	27.81	-	-	-	**	**	**	0.36	0.19	53.04	0.07	0.03	41.23
Maize	143.64	15.64	10.89	3.75	1.22	32.60	17.41	5.08	29.16	58.54	9.86	16.84	-	-	-
Sorghum	14.96	2.98	19.91	**	**	**	**	**	**	4.45	1.23	27.59	-	-	-
Millet	0.65	0.24	36.81	-	-	-	-	-	-	**	**	**	**	**	**
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	19.44	3.90	20.08	**	**	**	**	**	**	11.65	3.26	27.95	-	-	-
Horsebeans	**	**	**	-	-	-	-	-	-	**	**	**	**	**	**
Field Peas	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Haricotbeans	17.86	3.85	21.54	**	**	**	**	**	**	11.42	3.25	28.47	-	-	-
Chick Peas	**	**	**	-	-	-	**	**	**	**	**	**	-	-	-
Lentils	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Neug	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	195.24	17.43	8.93	4.09	1.27	31.06	17.81	5.29	29.73	79.41	10.75	13.53	2.03	0.55	27.29

TABLE 1.9 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.)
GAMBELA

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	1.24	0.55	44.26	--	--	--	--	--	--	0.27	0.01	5.42	--	--	--
Teff	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barley	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maize	1.22	0.55	44.73	--	--	--	--	--	--	0.27	0.01	5.42	--	--	--
Sorghum	**	**	**	--	--	--	--	--	--	--	--	--	--	--	--
Millet	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oats	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pulses	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Horsebeans	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Field Peas	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Haricotbeans	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chick Peas	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lentils	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vetch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Others	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Neug	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Linseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rapeseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Groundnuts	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sesame	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fenugreek	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All Crops	1.24	0.55	44.26	--	--	--	--	--	--	0.27	0.01	5.42	--	--	--

TABLE 1.10 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.) HARARI

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	**	**	**	-	-	-	**	**	**	**	**	**	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	-	-	-	**	**	**	**	**	**	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	0.87	0.14	16.40	**	**	**	**	**	**	0.24	0.06	23.85	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	0.87	0.14	16.40	**	**	**	**	**	**	0.24	0.06	23.85	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.89	0.14	15.68	**	**	**	0.01	0.00	0.00	0.25	0.05	21.91	-	-	-

TABLE 1.11 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.)
ADDIS ABABA

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 1.12 Estimates Of Area Under Improved Farm Management Practices and Their Standard Error and Coefficient Of Variation For Belg Season Crops Of Private Holdings, 1997/98(1990 E.C.)
DIREDAWA

Type of Crop	Total Area			Irrigated Applied Area			Improved Seed Applied Area			Fertilizer Applied Area			Pesticide Applied Area		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	0.38	0.06	14.42	0.15	0.04	25.13	0.01	0.00	22.65	0.16	0.04	27.93	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	0.32	0.06	19.75	0.14	0.04	26.27	0.01	0.00	22.65	0.15	0.05	30.54	-	-	-
Sorghum	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.38	0.06	14.42	0.15	0.04	25.13	0.01	0.00	22.65	0.16	0.04	27.93	-	-	-

TABLE 2.1 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
ETHIOPIA

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)
Cereals	165.62	17.31	10.45	68.23	9.55	14.00	91.77	13.20	14.39	8.90	2.02	22.75	72.81	11.86	16.29	15.68	4.88	31.14	5.62	1.18	21.03
Teff	6.01	1.38	22.91	**	**	**	3.88	0.95	24.42	0.56	0.24	42.91	2.36	0.62	26.29	**	**	**	0.07	0.00	4.63
Barley	47.16	10.60	22.49	7.06	2.35	33.26	39.04	9.93	25.43	1.85	0.55	29.52	36.63	9.72	26.54	**	**	**	1.07	0.02	1.51
Wheat	13.54	3.33	24.60	1.05	0.33	31.75	12.49	3.11	24.90	**	**	**	10.92	2.96	27.10	**	**	**	-	-	-
Maize	90.29	11.87	13.14	53.41	9.17	17.16	32.56	6.24	19.15	5.27	1.54	29.16	19.41	3.12	16.09	12.19	4.80	39.38	4.32	1.18	27.38
Sorghum	4.50	1.23	27.30	4.17	1.08	25.90	0.30	0.13	42.94	0.16	0.07	45.46	**	**	**	**	**	**	0.03	0.00	0.00
Millet	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-
Oats	3.95	1.28	32.40	**	**	**	3.45	1.18	34.16	**	**	**	3.28	1.15	34.88	**	**	**	0.14	0.01	8.42
Pulses	18.30	3.76	20.56	10.01	2.16	21.60	8.05	2.70	33.54	0.83	0.33	40.29	7.37	2.55	34.56	0.10	0.05	45.21	**	**	**
Horsebeans	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**	**	**	**	-	-	-
Field Peas	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Haricotbeans	16.71	3.70	22.17	8.70	2.09	24.01	7.77	2.69	34.16	0.60	0.25	41.66	7.32	2.55	34.80	-	-	-	**	**	**
Chick Peas	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	183.93	17.92	9.74	78.24	9.84	12.58	99.82	13.58	13.60	9.73	2.12	21.79	80.18	12.09	15.08	15.79	4.88	30.93	5.87	1.19	20.23

TABLE 2.2 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Cdficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
TIGRAY

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)
Cereals	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	-	-	-	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-

TABLE 2.3 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/1998(1990 E.C.)
AFAR

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate (¹ 000 HA)	S.E (¹ 000)	C.V (%)	Estimate (¹ 000 HA)	S.E (¹ 000)	C.V (%)	Estimate (¹ 000 HA)	S.E (¹ 000)	C.V (%)	Estimate (¹ 000 HA)	S.E (¹ 000)	C.V (%)	Estimate (¹ 000 HA)	S.E (¹ 000)	C.V (%)	Estimate (¹ 000 HA)	S.E (¹ 000)	C.V (%)	Estimate (¹ 000 HA)	S.E (¹ 000)	C.V (%)
Cereals	0.17	0.08	46.61	0.17	0.08	46.61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teff	0.14	0.06	41.32	0.14	0.06	41.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.19	0.09	45.36	0.19	0.09	45.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.4 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.) AMHARA

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+ Urea			Both(Nat+ Com)		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	12.90	4.01	31.12	6.18	1.99	32.27	6.72	2.57	38.27	-	-	-	**	**	**	1.76	0.58	32.76	1.09	0.01	1.19
Teff	2.74	1.18	43.00	**	**	**	**	**	**	-	-	-	-	-	-	**	**	**	0.07	0.00	4.62
Barley	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**	**	**	**	0.92	0.01	1.10
Wheat	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Maize	1.45	0.68	46.91	0.88	0.36	41.19	0.57	0.17	29.19	-	-	-	**	**	**	0.34	0.08	24.61	0.09	0.01	8.88
Sorghum	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Pulses	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	13.45	4.19	31.18	6.73	2.30	34.23	6.72	2.57	38.27	0.07	0.00	0.00	**	**	**	1.76	0.58	32.76	1.09	0.01	1.19

TABLE 2.5 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
 OROMIYA

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	82.73	13.51	16.32	28.47	6.26	21.97	54.26	11.46	21.12	**	**	**	49.42	11.18	22.63	2.53	0.78	30.65	0.40	0.05	12.55
Teff	1.17	0.51	43.67	**	**	**	1.13	0.51	45.10	-	-	-	1.13	0.50	44.61	-	-	-	-	-	-
Barley	37.00	9.82	26.55	3.92	1.64	41.99	33.08	9.59	28.98	1.22	0.37	30.61	30.73	9.33	30.36	**	**	**	0.14	0.03	24.72
Wheat	12.74	3.32	26.05	0.58	0.26	44.02	12.16	3.11	25.55	**	**	**	10.77	2.96	27.48	**	**	**	-	-	-
Maize	28.26	6.51	23.03	23.93	6.16	25.74	4.33	1.21	27.85	0.15	0.01	6.58	3.47	1.14	32.89	0.71	0.29	41.26	0.13	0.05	39.66
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	**	**	**	-	-	-	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Oats	3.52	1.22	34.76	-	-	-	3.52	1.19	33.89	**	**	**	3.28	1.15	34.88	**	**	**	0.14	0.03	24.72
Pulses	5.07	1.77	34.88	4.62	1.67	36.09	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**
Horsebeans	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Haricotbeans	4.21	1.70	40.29	4.04	1.63	40.45	**	**	**	-	-	-	**	**	**	-	-	-	**	**	**
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	87.81	13.68	15.58	33.10	6.22	18.78	54.71	11.58	21.16	2.53	1.23	48.42	49.65	11.18	22.52	2.53	0.78	30.65	0.51	0.12	23.65

TABLE 2.6 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
SOMALIE

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)
Cereals	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.7 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
BENSHANGUL - GUMUZ

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.8 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
S.N.N.P.R.

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)
Cereals	67.76	10.02	14.79	32.40	6.91	21.33	35.36	6.77	19.13	6.01	1.59	26.47	18.03	2.89	16.01	11.32	4.79	42.30	4.14	1.18	28.56
Teff	1.96	0.49	25.10	**	**	**	1.84	0.46	24.82	0.56	0.24	42.91	1.24	0.37	29.57	**	**	**	-	-	-
Barley	2.32	0.58	25.19	**	**	**	2.00	0.54	27.18	**	**	**	1.25	0.36	28.68	**	**	**	**	**	**
Wheat	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-
Maize	58.54	1.23	27.59	27.62	6.75	24.45	30.92	6.74	21.81	4.55	1.52	33.43	15.30	2.87	18.73	11.08	4.79	43.25	4.10	1.18	28.82
Sorghum	4.45	1.23	27.59	4.12	1.08	26.19	0.33	0.13	39.06	0.16	0.07	45.46	**	**	**	**	**	**	0.03	0.00	0.00
Millet	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	11.65	3.26	27.95	3.88	1.21	31.29	7.78	2.69	34.62	0.57	0.25	43.75	7.13	2.54	35.68	**	**	**	0.12	0.06	47.26
Horsebeans	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	11.42	3.25	28.47	3.65	1.19	31.29	7.76	2.69	34.67	0.56	0.25	44.30	7.13	2.54	35.68	**	**	**	0.12	0.06	47.26
Chick Peas	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	79.41	10.75	13.53	36.28	7.23	19.94	43.13	7.30	16.94	6.58	1.71	26.02	25.16	3.72	14.80	11.39	4.79	42.01	4.26	1.18	27.72

TABLE 2.9 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
GAMBELA

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)
Cereals	0.27	0.01	5.42	--	--	--	0.27	0.01	5.42	0.27	0.01	5.42	--	--	--	--	--	--	--	--	--
Teff	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barley	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maize	0.27	0.01	5.42	--	--	--	0.27	0.01	5.42	0.27	0.01	5.42	--	--	--	--	--	--	--	--	--
Sorghum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Millet	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oats	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pulses	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Horsebeans	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Field Peas	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Haricotbeans	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chick Peas	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lentils	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vetch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Others	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Neug	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Linseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rapeseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Groundnuts	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sesame	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fenugreek	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All Crops	0.27	0.01	5.42	--	--	--	0.27	0.01	5.42	0.27	0.01	5.42	--	--	--	--	--	--	--	--	--

TABLE 2.10 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
HARARI

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)
Cereals	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Scorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	0.24	0.06	23.85	-	-	-	0.07	0.02	25.73	0.04	0.01	23.91	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	0.24	0.06	23.85	-	-	-	0.07	0.02	25.73	0.04	0.01	23.91	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.25	0.05	21.91	-	-	-	0.08	0.02	26.69	0.04	0.01	23.91	-	-	-	-	-	-	-	-	-

TABLE 2.11 Estimates Of Fertilizer Applied Area by type of Fertilizer and their Standard Error and Coefficient of Variation Belg Season Crops of Private Holdings, 1997/98(1990 E.C.)
DIRE DAWA

Type of Crop	Total			Natural			Commercial			Urea			Dap			Dap+Urea			Both(Nat+Com)		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)
Cereals	0.16	0.04	27.93	-	-	-	0.01	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	0.15	0.05	30.54	-	-	-	0.01	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.16	0.04	27.93	-	-	-	0.01	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-

Table 3.1 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

ETHIOPIA

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)
	1139.14	148.83	13.07	64.82	16.91	26.09	770.38	103.30	13.41	303.93	87.51	28.79
Teff	25.22	6.13	24.32	4.07	1.41	34.54	15.74	4.61	29.26	**	**	**
Barley	447.72	93.00	20.77	9.13	2.80	30.68	422.90	87.93	20.79	**	**	**
Wheat	116.28	25.78	22.17	**	**	**	94.03	23.14	24.61	**	**	**
Maize	527.25	106.36	20.17	45.02	15.88	35.27	218.58	32.47	14.86	263.65	87.73	33.27
Sorghum	2.60	0.96	37.02	1.35	0.63	46.45	**	**	**	**	**	**
Millet	**	**	**	**	**	**	**	**	**	**	**	**
Oats	19.52	6.29	32.24	**	**	**	17.97	5.95	33.12	**	**	**
Pulses	56.51	24.04	42.55	4.42	1.55	35.13	51.17	23.46	45.85	0.91	0.39	42.69
Horsebeans	**	**	**	-	-	-	**	**	**	**	**	**
Field Peas	**	**	**	**	**	**	**	**	**	-	-	-
Haricotbeans	56.03	24.04	42.55	4.21	1.54	36.60	50.91	23.46	46.09	0.91	0.39	42.69
Chick Peas	**	**	**	**	**	**	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	1195.65	149.73	12.52	69.25	17.68	25.54	821.55	104.94	12.77	304.85	87.49	28.70

Table 3.2 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

TIGRAY

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)
Cereals	4.53	2.22	48.93	**	**	**	**	**	**	2.00	0.56	28.12
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	4.53	2.22	48.93	**	**	**	**	**	**	2.00	0.56	28.12
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	4.53	2.22	48.93	**	**	**	**	**	**	2.00	0.56	28.12

Table 3.3 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

AFAR

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	-	-	-	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	-	-	-	-	-	-	-	-	-	-	-	-

Table 3.4 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

AMHARA

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)
Cereals	79.82	32.83	41.13	0.46	0.00	0.00	67.94	31.31	46.08	11.42	2.86	25.07
Teff	**	**	**	0.13	0.00	0.00	-	-	-	**	**	**
Barley	67.42	33.12	49.12	-	-	-	65.75	32.05	48.74	**	**	**
Wheat	**	**	**	-	-	-	**	**	**	-	-	-
Maize	**	**	**	0.33	0.00	0.00	**	**	**	4.40	2.15	48.97
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	**	**	**	-	-	-	-	-	-	**	**	**
Pulses	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	79.82	32.83	41.13	0.46	0.00	0.00	67.94	31.31	46.08	11.42	2.86	25.07

Table 3.5 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

OROMIYA

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	538.50	100.84	18.73	10.68	5.16	48.36	495.08	94.15	19.02	32.75	10.86	33.17
Teff	**	**	**	—	—	—	**	**	**	—	—	—
Barley	361.38	86.74	24.00	5.43	1.98	36.47	342.98	81.75	23.83	**	**	**
Wheat	108.56	25.09	23.11	**	**	**	93.18	23.14	24.83	**	**	**
Maize	41.95	18.06	43.06	0.43	0.00	0.00	33.19	15.53	46.80	8.33	3.82	45.88
Sorghum	—	—	—	—	—	—	—	—	—	—	—	—
Millet	**	**	**	**	**	**	**	**	**	—	—	—
Oats	18.77	6.25	33.28	**	**	**	17.97	5.95	33.12	**	**	**
Pulses	5.12	2.26	44.11	**	**	**	4.93	2.24	45.54	—	—	—
Horsebeans	**	**	**	—	—	—	**	**	**	—	—	—
Field Peas	**	**	**	**	**	**	**	**	**	—	—	—
Haricotbeans	4.66	2.26	48.43	—	—	—	4.66	2.25	48.18	—	—	—
Chick Peas	—	—	—	—	—	—	—	—	—	—	—	—
Lentils	—	—	—	—	—	—	—	—	—	—	—	—
Vetch	—	—	—	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—	—	—	—
Neug	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	—	—	—	—	—	—	—	—	—	—	—	—
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	—	—	—	—	—	—	—	—	—	—	—	—
Sesame	—	—	—	—	—	—	—	—	—	—	—	—
Fenugreek	—	—	—	—	—	—	—	—	—	—	—	—
All Crops	543.62	100.73	18.53	10.87	5.20	47.82	500.00	93.79	18.76	32.75	10.86	33.17

Table 3.6 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

SOMALIE

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)	Estimate (^{'000} HA)	S.E (^{'000})	C.V (%)
Cereals	**	**	**	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	-	-	-	-	-	-	-	-	-

Table 3.7 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

BENSHANGUL – GUMUZ

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate (⁰ 000 HA)	S.E (⁰ 000)	C.V (%)	Estimate (⁰ 000 HA)	S.E (⁰ 000)	C.V (%)	Estimate (⁰ 000 HA)	S.E (⁰ 000)	C.V (%)	Estimate (⁰ 000 HA)	S.E (⁰ 000)	C.V (%)
Cereals	**	**	**	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	-	-	-	-	-	-	-	-	-

Table 3.8 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

S.N.N.P.R.

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate (⁰⁰⁰ HA)	S.E (⁰⁰⁰)	C.V (%)	Estimate (⁰⁰⁰ HA)	S.E (⁰⁰⁰)	C.V (%)	Estimate (⁰⁰⁰ HA)	S.E (⁰⁰⁰)	C.V (%)	Estimate (⁰⁰⁰ HA)	S.E (⁰⁰⁰)	C.V (%)
Cereals	257.72	86.78	33.67	52.17	16.07	30.79	206.08	28.74	13.94	515.97	104.14	20.23
Teff	**	**	**	3.94	1.41	35.70	8.23	2.63	31.89	12.98	3.44	26.48
Barley	**	**	**	**	**	**	14.17	4.73	33.34	18.92	5.24	27.70
Wheat	**	**	**	**	**	**	**	**	**	**	**	**
Maize	248.87	87.62	35.21	42.75	15.84	37.05	182.33	28.45	15.60	473.95	104.73	22.10
Sorghum	**	**	**	1.35	0.63	46.44	**	**	**	2.60	0.96	37.02
Millet	**	**	**	-	-	-	-	-	-	**	**	**
Oats	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	**	**	**	3.78	1.54	40.60	**	**	**	50.58	23.94	47.32
Horsebeans	**	**	**	-	-	-	-	-	-	**	**	**
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	**	**	**	3.76	1.54	40.79	**	**	**	50.56	23.94	47.35
Chick Peas	-	-	-	**	**	**	-	-	-	**	**	**
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	258.38	86.77	33.58	55.96	16.86	30.14	252.22	35.14	13.93	566.55	105.78	18.67

Table 3.9 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

GAMBELA

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate (⁰⁰⁰ HA)	S.E (⁰⁰⁰)	C.V (%)	Estimate (⁰⁰⁰ HA)	S.E (⁰⁰⁰)	C.V (%)	Estimate (⁰⁰⁰ HA)	S.E (⁰⁰⁰)	C.V (%)	Estimate (⁰⁰⁰ HA)	S.E (⁰⁰⁰)	C.V (%)
Cereals	0.23	0.00	0.00	0.23	0.00	0.00	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	0.23	0.00	0.00	0.23	0.00	0.00	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.23	0.00	0.00	0.23	0.00	0.00	-	-	-	-	-	-

Table 3.10 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

HARARI

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	**	**	**	-	-	-	-	-	-	**	**	**
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	-	-	-	-	-	-	**	**	**
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	0.81	0.33	40.35	0.45	0.14	30.97	0.11	0.03	26.12	0.25	0.11	42.01
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	0.81	0.33	40.35	0.45	0.14	30.97	0.11	0.03	26.12	0.25	0.11	42.01
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.85	0.34	39.31	0.45	0.14	30.97	0.11	0.03	26.12	0.30	0.07	22.45

Table 3.10 Estimates of Quantity of Fertilizer Applied by type of Fertilizer and their Standard error and Coefficient of Variation of Private Holdings, 1997/98(1990 E.C.)

DIRE DAWA

Type of Crop	Total			Urea			Dap			Dap + Urea		
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V
	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	**	**	**	-	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	-	-	-	-	-	-	-	-	-

Table 4.1 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.) ETHIOPIA

Type of Crop	Area Size Groups in Hectares																									
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total				
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V		
('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)
Cereals	70.14	5.16	7.36	475.35	24.95	5.25	122.91	14.18	11.54	16.48	1.67	10.13	10.38	1.87	17.98	3.04	0.00	0.00	11.78	0.08	0.69	710.07	38.40	5.41		
Teff	3.67	1.06	28.73	42.92	7.37	17.17	11.62	3.52	30.29	1.72	0.77	45.11	-	-	-	-	-	-	-	-	-	59.92	10.27	17.14		
Barley	20.12	3.10	15.43	151.82	15.54	10.24	37.84	9.11	24.08	4.91	1.79	36.44	**	**	**	-	-	-	-	-	-	215.08	23.32	10.84		
Wheat	2.47	0.56	22.51	29.99	5.69	18.96	10.71	3.67	32.24	**	**	**	-	-	-	-	-	-	-	-	-	43.90	9.23	21.02		
Mälze	39.67	3.31	8.34	224.72	17.71	7.88	52.71	9.22	17.47	6.69	1.03	15.35	9.13	1.74	19.08	3.04	0.00	0.00	11.78	0.08	0.69	347.81	27.86	8.01		
Sorghum	0.53	0.16	30.92	14.31	3.93	27.47	**	**	**	2.35	0.73	31.21	0.85	0.35	41.10	-	-	-	-	-	-	27.01	7.03	26.02		
Millet	**	**	**	0.42	0.16	37.50	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	0.88	0.31	35.04		
Oats	3.38	0.89	26.35	11.18	2.38	21.32	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	15.47	3.09	19.98		
Pulses	18.85	2.40	12.75	71.62	9.25	12.91	11.26	3.14	27.86	**	**	**	2.13	0.40	18.65	0.37	0.00	0.00	0.95	0.00	0.00	107.94	12.61	11.69		
Horsebeans	0.79	0.32	40.39	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-	4.10	1.75	42.71		
Field Peas	3.46	1.41	40.79	9.50	2.15	22.63	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	16.77	4.50	26.83		
Haricotbeans	11.93	1.56	13.04	40.58	6.53	16.09	2.01	0.57	28.36	**	**	**	1.48	0.00	0.00	0.37	0.00	0.00	0.95	0.00	0.00	57.54	7.73	13.43		
Chick Peas	0.70	0.35	49.17	6.39	2.49	38.90	1.95	0.95	48.56	**	**	**	0.25	0.00	0.00	-	-	-	-	-	-	9.84	3.56	36.21		
Lentils	1.81	0.50	27.82	11.88	4.14	34.82	**	**	**	1.00	0.50	49.84	-	-	-	-	-	-	-	-	-	19.02	6.25	32.86		
Vetch	0.16	0.08	49.12	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**		
Others	0.33	0.11	35.11	4.08	2.04	49.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.40	2.09	47.56		
Neug	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**		
Linseed	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**		
Rapeseed	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**		
Groundnuts	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**		
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Fenugreek	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**		
All Crops	89.32	6.43	7.20	551.04	27.09	4.92	134.17	15.95	11.89	19.23	2.10	10.91	12.51	1.79	14.26	3.42	0.00	0.00	12.73	0.08	0.64	822.41	43.18	5.25		

Table 4.2 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.)
TIGRAY

Type of Crop	Area Size Groups in Hectares																							
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total		
	Estimate ('000 HA)	S.E ('000) (%)	C.V	Estimate ('000 HA)	S.E ('000) (%)	C.V	Estimate ('000 HA)	S.E ('000) (%)	C.V	Estimate ('000 HA)	S.E ('000) (%)	C.V	Estimate ('000 HA)	S.E ('000) (%)	C.V	Estimate ('000 HA)	S.E ('000) (%)	C.V	Estimate ('000 HA)	S.E ('000) (%)	C.V			
Cereals	**	**	**	3.49	1.54	44.15	5.05	1.17	23.13	1.40	0.00	0.00	-	-	-	-	-	-	10.21	4.59	44.90	10.21	4.59	44.90
Teff	-	-	-	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**	**	**	**
Barley	**	**	**	1.39	0.58	41.51	**	**	**	-	-	-	-	-	-	-	-	-	1.75	0.76	43.39	1.75	0.76	43.39
Wheat	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	**	**	**
Maize	**	**	**	**	**	**	4.45	1.42	32.02	1.40	0.00	0.00	-	-	-	-	-	-	**	**	**	**	**	**
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	**	**	**
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	**	**	**
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	**	**	**
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	3.63	1.54	42.26	5.05	1.17	23.13	1.40	0.00	0.00	-	-	-	-	-	-	10.41	4.58	43.99	10.41	4.58	43.99

Table 4.3 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.)
AFAR

Type of Crop	Area Size Groups in Hectares																							
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)			
Cereals	**	**	**	2.26	0.37	16.15	0.44	0.10	23.13	-	-	-	-	-	-	-	-	-	-	-	-	2.77	0.46	16.63
Teff	0.04	0.02	42.61	1.86	0.39	20.91	0.23	0.09	41.38	-	-	-	-	-	-	-	-	-	-	-	-	2.12	0.48	22.52
Barley	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Wheat	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	0.19	0.07	38.27
Maize	-	-	-	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Sorghum	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	0.03	0.01	39.73	0.89	0.28	31.73	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	1.06	0.31	28.86
Pulses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Häricotbeans	**	**	**	0.42	0.17	31.07	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	0.48	0.18	37.49
Chick Peas	**	**	**	0.47	0.15	31.07	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	0.58	0.16	28.26
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.10	0.05	45.25	3.16	0.42	13.29	0.57	0.11	19.00	-	-	-	-	-	-	-	-	-	-	-	-	3.83	0.56	14.71

Table 4.4 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.)
GROMIA

Type of Crop	Area Size Groups in Hectares																										
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total					
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V			
('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	
Cereals	24.47	2.44	9.98	246.65	18.95	7.68	66.76	10.04	15.04	5.49	0.48	8.75	7.73	1.66	21.49	-	-	-	9.50	0.07	0.74	360.60	28.79	7.98			
Teff	0.29	0.13	45.57	9.40	3.22	34.23	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	12.87	5.08	39.51			
Barley	7.09	1.18	16.63	88.54	10.72	12.10	23.51	4.87	20.74	2.44	1.13	46.46	-	-	-	-	-	-	-	-	-	121.58	15.59	12.82			
Wheat	0.87	0.33	37.94	24.29	5.45	22.45	7.90	3.29	41.59	**	**	**	-	-	-	-	-	-	-	-	-	33.61	8.90	26.47			
Maize	15.18	2.00	13.14	109.83	13.78	12.55	30.45	8.66	28.44	2.51	0.89	35.41	7.73	1.66	21.49	-	-	-	9.50	0.07	0.74	175.20	22.40	12.78			
Sorghum	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**			
Millet	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Oats	0.83	0.20	24.72	8.80	2.23	25.37	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	10.54	2.71	25.70			
Pulses	7.90	1.32	16.66	35.33	7.24	20.48	3.69	1.32	35.74	-	-	-	1.48	0.00	0.00	-	-	-	-	-	-	48.40	8.92	18.42			
Horsebeans	0.74	0.32	42.56	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	3.46	1.69	48.97			
Field Peas	0.74	0.30	41.08	6.29	1.83	29.07	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	8.36	2.43	29.06			
Haricotbeans	6.05	1.11	18.37	18.40	4.70	25.52	**	**	**	-	-	-	1.48	0.00	0.00	-	-	-	-	-	-	26.22	5.60	21.34			
Chick Peas	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Lentils	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Vetch	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Others	0.17	0.08	48.25	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Linseed	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Groundnuts	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Fenugreek	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
All Crops	32.54	2.88	8.84	285.73	21.16	7.40	70.45	10.34	14.67	5.49	0.48	8.75	9.21	1.66	18.04	-	-	-	9.50	0.07	0.74	412.92	32.04	7.76			

Table 4.5 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.)
SOMALIE

Type of Crop	Area Size Groups in Hectares																												
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total							
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V					
('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)			
Cereals	0.28	0.10	35.97	3.41	0.97	28.48	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.45	1.53	34.37
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Wheat	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Maize	0.25	0.09	35.16	3.22	0.94	29.06	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	4.24	1.48	34.83	
Sorghum	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.32	0.11	35.57	3.72	0.93	25.13	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	4.80	1.56	32.52	

Table 4.6 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.)
BENSHANGUL_GUMIEZ

Type of Crop	Area Size Groups In Hectares																														
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total									
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V							
('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)					
Cereals	**	**	**	0.26	0.12	44.56	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	0.12	43.18			
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Maize	**	**	**	0.26	0.12	44.56	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	0.12	43.18			
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Pulses	0.26	0.11	42.60	4.61	2.11	45.66	0.43	0.16	37.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.95	0.00	0.00	6.62	2.47	37.31	
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Haricotbeans	0.26	0.11	42.60	4.61	2.11	45.66	0.43	0.16	37.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.95	0.00	0.00	6.62	2.47	37.31
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
All Crops	0.27	0.11	42.72	4.87	2.08	42.70	0.44	0.15	34.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.95	0.00	0.00	6.91	2.46	35.68	

Table 4.7 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.) S.N.N.P.R

Type of Crop	Area Size Groups in Hectares																										
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total					
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V			
('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	
Cereals	24.70	2.59	10.47	115.23	11.47	9.96	22.12	2.98	13.45	5.73	0.91	15.81	2.64	0.85	32.09	3.04	0.00	0.00	-	-	-	175.75	16.74	9.52			
Teff	0.36	0.10	26.67	2.78	0.43	15.62	1.95	0.43	21.97	1.03	0.36	34.88	-	-	-	-	-	-	-	-	-	6.12	1.08	17.66			
Barley	2.44	0.54	22.02	6.26	1.73	27.60	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	9.18	1.97	21.49			
Wheat	0.06	0.02	35.27	0.70	0.17	24.33	0.26	0.12	44.87	**	**	**	-	-	-	-	-	-	-	-	-	1.21	0.34	27.81			
Maize	21.27	2.47	11.61	97.40	10.70	10.98	16.17	2.77	17.13	2.07	0.32	15.55	1.39	0.51	36.39	3.04	0.00	0.00	-	-	-	143.64	15.64	10.89			
Sorghum	0.46	0.16	34.27	7.69	1.64	21.31	3.61	0.83	23.04	2.35	0.73	31.20	0.85	0.35	41.09	-	-	-	-	-	-	14.96	2.98	19.91			
Millet	**	**	**	0.39	0.15	39.79	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	0.65	0.24	36.81			
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	5.00	0.97	19.39	12.31	3.06	24.89	1.15	0.46	40.15	**	**	**	**	**	**	-	-	-	-	-	-	19.44	3.90	20.08			
Horsebeans	**	**	**	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-	-	-	-	**	**	**			
Field Peas	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Haricotbeans	4.87	0.97	19.90	11.67	3.06	26.20	1.10	0.46	41.64	**	**	**	-	-	-	-	-	-	-	-	-	17.86	3.85	21.54			
Chick Peas	**	**	**	**	**	**	**	**	**	**	**	**	0.25	0.00	0.00	-	-	-	-	-	-	**	**	**			
Lentils	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Neug.	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**			
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	29.74	2.88	9.69	127.55	11.84	9.28	23.26	3.12	13.40	6.06	1.08	17.87	3.29	0.65	19.83	3.04	0.00	0.00	-	-	-	195.24	17.43	8.93			

Table 4.8 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.)
GAMBELA

Type of Crop	Area Size Groups in Hectares																							
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total		
	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)	Estimate ('000 HA)	S.E ('000)	C.V (%)
Cereals	**	**	**	0.10	0.03	29.95	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	1.24	0.55	44.26
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	0.10	0.03	29.95	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	1.22	0.55	44.73
Sorghum	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	**	**	**	0.10	0.03	29.95	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	1.24	0.55	44.26

Table 4.9 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.) HARARI

Type of Crop	Area Size Groups in Hectares																										
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total					
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V			
('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	
Cereals	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	-	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	0.02	0.01	28.56	0.71	0.11	15.44	**	**	**	0.15	0.03	18.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	0.02	0.01	28.56	0.71	0.11	15.44	**	**	**	0.15	0.03	18.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	0.02	0.00	0.00	0.72	0.11	14.66	**	**	**	0.15	0.03	18.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.10 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.)
ADDIS ABABA

Type of Crop	Area Size Groups in Hectares																											
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total						
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V				
('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)		
Cereals	-	-	-	0.02	0.01	44.05	0.04	0.00	0.00	0.02	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	0.02	0.01	44.05	0.04	0.00	0.00	0.02	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricotbeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Crops	-	-	-	0.02	0.01	44.05	0.04	0.00	0.00	0.02	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**

Table 4.11 Estimates of area by area size groups and their standard error and coefficient of variation for belg season crops of private holdings, 1997/98 (1990 E.C.)
DIREDAWA

Type of Crop	Area Size Groups in Hectares																												
	Under 0.1			0.1-0.5			0.51-1.00			1.01-2.00			2.01-5.00			5.01-10.00			10.00 & Over			Total							
	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V	Estimate	S.E	C.V								
('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)	('000 HA)	('000)	(%)						
Cereals	0.03	0.01	29.76	0.32	0.05	15.24	0.03	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38	0.06	14.42			
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Maize	0.03	0.01	29.76	0.29	0.05	18.70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	0.06	19.75	
Sorghum	-	-	-	0.03	0.01	44.78	0.03	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Pulses	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Haricotbeans	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**	**	**	
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
All Crops	0.03	0.01	29.90	0.32	0.05	15.24	0.03	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38	0.06	14.42	