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**THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
CENTRAL STATISTICAL AUTHORITY**



**AGRICULTURAL SAMPLE SURVEY
1996/97 (1989 E.C.)**

VOLUME III

**REPORT ON
FARM MANAGEMENT PRACTICES**

(PRIVATE PEASANT HOLDINGS, MEHER SEASON)

**ADDIS ABABA
JUNE, 1997**

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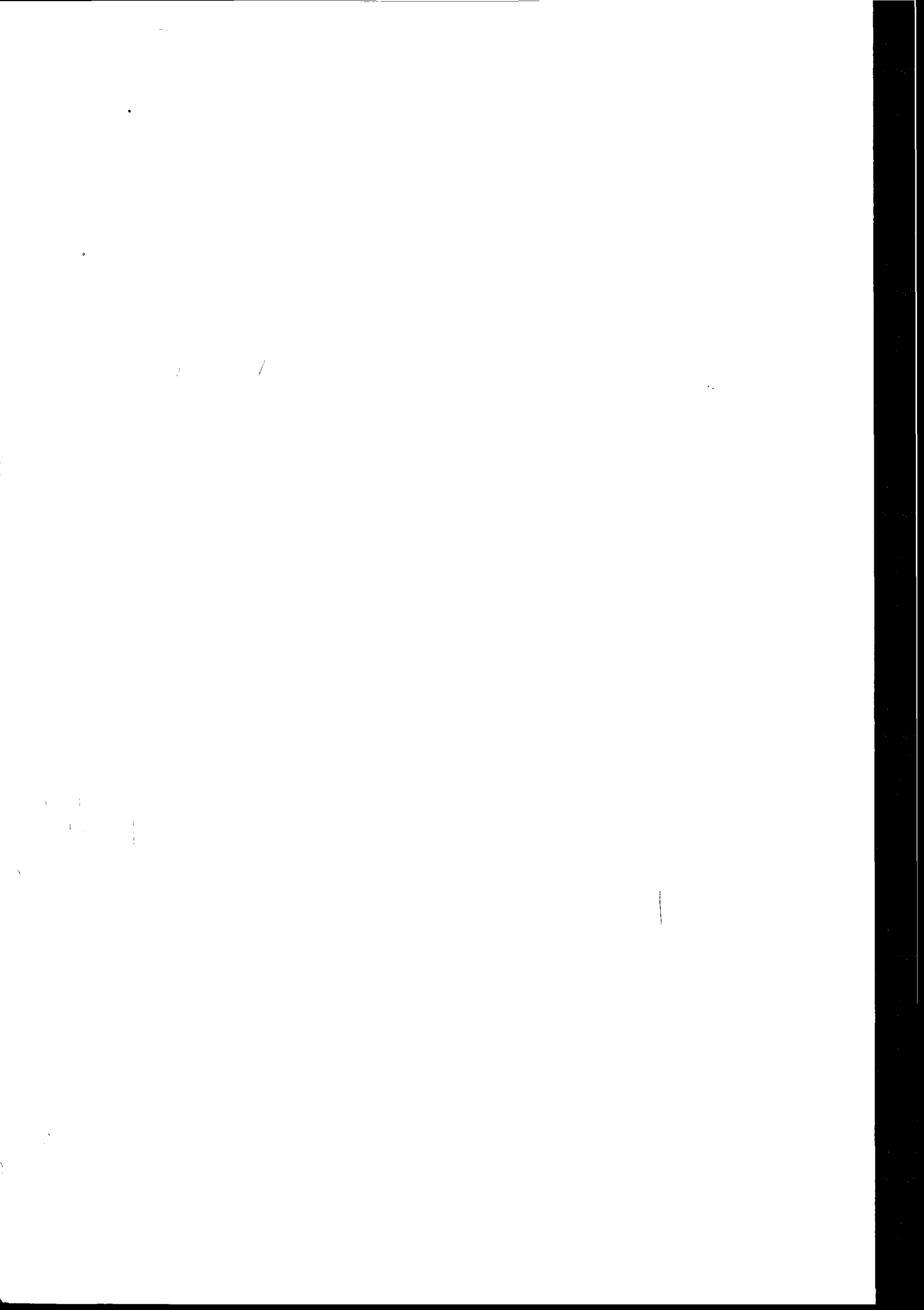
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REPORT ON

FARM MANAGEMENT PRACTICES

1. INTRODUCTION

Agriculture contributes a major part for the economy of Ethiopia. It contributes a significant amount to the Gross Domestic Product (GDP) and also the majority of the population in the country is engaged in it. The collection of reliable, comprehensive and timely statistical information in this sector is so imperative for the formulation of agricultural development plan and policy. However, it is becoming difficult to provide all kinds of agricultural information needed by planners and policy makers due to resource limitation.

The Central Statistical Authority (CSA) has been conducting Agricultural Sample Surveys on annual basis since 1980/81 (1973 E.C.) to produce some of the statistical data that can be used in planning and policy making activities.

This volume presents survey results on agricultural practices such as, use of improved seed, irrigation, application of pesticides and fertilizers of the private holdings. Also the reader is referred to Volume I of the same survey which is "Report on Area and Production of Major Crops; Private Holdings, Main Season, Addis Ababa, April, 1997." That volume presents in its appendices number of sampled EAs, number of EAs that are actually covered and not covered in the survey; number of households planned to be covered and those actually covered in the survey for the purpose of agricultural practices (uses of improved seed, irrigation, pesticide and fertilizers), area and production of major crops and number of fields measured. Moreover, estimation procedures, standard errors and coefficient of variations for agricultural practices such as uses of improved seed, irrigation, pesticide and fertilizers during Main (Meher) season are presented in Appendix I and II of this report.

2. OBJECTIVES OF THE SURVEY.

The general objective of the agricultural sample survey was to collect basic quantitative information on the nation's agriculture that are considered essential for development planning and socio-economic policy formulation.

In particular, the objectives of the survey were to estimate the total cultivated land; total production and yield of major crops per hectare; crop land uses (temporary and permanent); quantity and cost of agricultural inputs by type; number of livestock and poultry by type, purpose, sex and age; number of beehives and honey production in the private peasant holdings for the nation, regions and group of zones.

3. COVERAGE AND CONTENT.

The 1996/97 (1989 E.C.) annual agricultural sample survey was designed to cover sedentary rural agricultural population in all regions of the country. Urban and nomadic areas were not included in the survey. Accordingly, a total of 55 zones and 375 weredas were covered by the survey. The areal coverage of the survey is given in the following table.

AREAL COVERAGE OF THE 1996/97 AGRICULTURAL SAMPLE SURVEY

REGION	NUMBER OF ZONES			NUMBER OF WEREDAS	
	TOTAL	COVERED BY THE SURVEY	NOT COVERED BY THE SURVEY	PLANNED TO BE COVERED BY THE SURVEY	COVERED BY THE SURVEY
TIGRAY ¹	5	4	1	35	33
AFAR ²	5	3	2	7	7
AMHARA	10	10	-	95	95
OROMIYA	12	12	-	148	148
SOMALIE ³	9	3	6	7	6
BENSHANGUL-GUMEZ	3	2	1	7	7
S.N.N.P.R.	16	16	-	68	68
GAMBELA	1	1	-	5	4
HARARI	1	1	-	1	1
A. ABABA ⁴	6	2	4	5	5
DIRE DAWA	1	1	-	1	1
TOTAL	69	55	15	379	375

Note

- 1 - In Tigray Region, four out of five zones have rural settled population. In the remaining one zone the entire population is urban residents.
- 2 - Afar region has a total of five zones, but only two zones have significant sedentary rural population.
- 3 - Somalie region has a total of nine zones, however only three zones have significant sedentary rural 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 residents.

S.N.N.P.R = Southern Nations and Nationalities Peoples' Region

Moreover, for the survey a total of 705 Enumeration Areas were selected to be covered in all regions. Nevertheless, 5 of them were closed due to various reasons and the survey succeeded to cover 700 Enumeration Areas(EAs). Furthermore, from each of the selected EAs a sample of 25 agricultural households were selected to represent the agricultural population of the sampled EA.

From these households, information on area under crops, Meher and Belg season production of crops, crop land utilisation, agricultural practices, crop damage, quantity and price of agricultural inputs used, number of livestock and poultry by type, purpose, age and sex, number of beehives by type, honey yield, milk yield and milk for butter were collected.

4. CONCEPTS AND DEFINITIONS.

In order to standardize the data the same concepts and definitions should be applied during data collection. Hence, some of the concepts and definitions used in the survey are given below.

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 consists of 150 - 200 households.

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

Holding: a holding is all the land and/or 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.

Size of Holding: In this report size of holding is determined by total area under different crops, such as area under temporary crops and permanent crops.

Household: 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. These persons are taken as members of the household.

Agricultural household: 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 of one or more cadastral units, plots or fields 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.

Meher(Main) Season Crop: Any crop harvested from Meskerem (September) to Yekatit (February) is considered as meher season crop.

Temporary Crops: Temporary crops are those crops which are grown with a cycle of under one year, sometimes only a few months with a view to be sown or planted anew for further production after the harvest. Similarly, crops grown in rotation are also considered temporary crops as these are destroyed when land is ploughed.

Permanent Crops: Crops which occupy land for a long period of time and are not planted for several years after each harvest are considered as permanent crops. All fruit trees (e.g. oranges, mandarins, apples, ...etc.) and trees used for beverages (like coffee, tea, ... etc.) are considered as permanent crops. Permanent meadows and pastures, however, are excluded.

5. SAMPLE DESIGN.

A two stage stratified sample design was used for the 1996/97 (1989 E.C.) Annual Agricultural Sample Survey. In three regions, namely in Amhara, Oromiya and Southern Nations and Nationalities Peoples' Region, group of contiguous zones were treated as strata/reporting levels of the survey results. In the remaining regions, the reporting levels were the regions themselves. The primary sampling units (PSUs) in all strata were Enumeration Areas (EAs). Agricultural households were the ultimate sampling units. The survey questionnaires were administered to all agricultural holders in the sampled agricultural households.

A fixed number of sample EAs was determined for each stratum/ reporting level based on precision of estimates, household size of the stratum and cost considerations. The overall sample number of EAs in a stratum was proportionately allocated to zones/special weredas within the stratum to their household size. From within each Zone/Special Wereda sample EAs were selected with probability proportional to size, size being the total number of households of EAs as obtained from the 1994 census map work. From each sample EA, 25 agricultural households were sampled systematically without replacement from a fresh list of agricultural households.

All information were collected from these households except for crop-cutting exercise, for which data were collected only from the last 15 agricultural households starting from the 11th selected agricultural households. Moreover, holders within these households were enumerated and the required data were collected from these holders.

6. FIELD ORGANIZATION.

CSA branch statistical office heads, field supervisors and enumerators, experts from head office, other support staff and drivers were involved in the operation of the survey.

For all enumerators the necessary survey equipment, such as compasses, protractors, ruler, measuring tapes, balance scales, poles, ropes, sample bags,...etc. were made available and to assist the field work a certain number of vehicles were put on operation.

7. TRAINING OF FIELD STAFF.

The training program for the field staff was carried out in two stages. In the first stage trainees from the head office, branch statistical office heads and some of the field supervisors were given training for one week at the head office. Some of those trained in the first stage conducted similar training for field supervisors and enumerators for 10 days in all the 15 branch offices all over the country. During the training, the field staff were given detailed class room instruction on the objective and uses of the survey, concept and definitions of terms used, method of area measurement, method of crop cutting, interviewing procedures,... etc. The training sessions included thorough field practices with regard to data collection.

8. METHOD OF DATA COLLECTION.

Survey data were collected on questionnaires both by subjective and objective methods. Information on agricultural practices (application of fertilizer, pesticide, use of improved seed and irrigation), livestock and poultry information were collected subjectively by interviewing the holders in the sampled households.

In addition, the objective measurements, particularly for area measurements, were carried out for the 25 selected households from each sampled EA in which all crop areas were physically measured using compasses and measuring tapes.

9. EDITING, CODING AND VERIFICATION.

Intensive training was given to the editors and in due course, regular staffs were assigned to answer questions, clear doubts,...etc. so as to facilitate the editing and coding activity. In addition, the edited and coded data were checked by supervisors on 100% basis.

10. DATA ENTRY, CLEANING AND PROCESSING.

The data was entered in personal computers using IMPS (Integrated Microcomputer Processing System) Software by data encoders. Then, the data entered was checked and cleaned. Finally, the data processing activity was also done by personal computers(PCs) to produce results which were indicated in the tabulation plan.

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 variations (i.e. they are less reliable). However they are consolidated in the total estimates.
3. It should also be noted that the smaller the Coefficient of Variation , the higher the reliability of the estimate.

11. SURVEY RESULTS.

1. Area under Farm Management Practices:

This part deals with the total crop area on which the private peasant holders used farm management practices and these refer to practices that increase crop production and are mainly uses of improved seed, irrigation, pesticide and fertilizer. The results are summarized and presented below.

Fertilizer: refers to anything added to the soil intended to increase the amount of plant nutrients available for crop growth. Usually fertilizers are divided in to 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).

Pesticide: are chemicals useful for the mitigation, control or elimination of pests which are troublesome or harmful to crops. Insecticides and herbicides are included here.

Area Irrigated: refers to the practice where an area of land is purposely and actually provided with water, other than by rain, for improving the production of crops. The uncontrolled flooding of land by the overflow of rivers or streams is not considered to be irrigation.

Improved Seed: is defined as crop variety which gives a significant higher yield, better quality and/or better benefit compared to traditional varieties of seeds.

Table a : Summary of Area under Farm Management Practices

Type of Management Practice	Area Applied ('000 Hectare)
<i>Use of Improved Seed</i>	165.38
<i>Use of Irrigation</i>	68.21
<i>Use of Pesticide</i>	624.18
<i>Use of Fertilizer</i>	2,844.86

1.1 Total Improved Seed Applied Area.

As indicated in Table 1.1, the total cultivated area of all crops is about 8,825.40 thousand hectares. From this crop area, *improved seed* was applied only on 165.38 thousand hectares (1.87%). This indicates that the peasant holders applied largely the traditional seed rather than the improved ones, and this may have been actually due to less availability and high costs of the improved seed.

Out of the total area under *improved seed*, 153.52 thousand hectares was under temporary crops and 11.86 thousand hectares was under permanent crops.

1.2 Total Irrigated Area.

The total *irrigated area* at national level is 68.21 thousand hectares or 0.77% of the total area (See Summary Table a).

Out of the total *irrigated area* 68.52%, was under temporary crops and 31.48% was under permanent crops. Moreover, sorghum from temporary crops and coffee from permanent crops had the largest proportion of *area irrigated* i.e. 27.81% and 8.6% respectively (Refer to Table 1.1).

1.3 Total Pesticide Applied Area.

Table 1.1 : Summary of Area under Farm Management Practices

It was mentioned above that the total cultivated land during the year 1996/97 meher season, was about 8,825.40 thousand hectares out of this *pesticide* was applied on only 7.07% of the total crop

land, i.e. 624.18 thousand hectares (See Summary Table a).

Area Applied ('000 Hectare)	Type of Management Practice
162.38	Use of Improved Seed
68.21	Use of Irrigation
624.18	Use of Pesticide
8,825.40	Total Cultivated Area

The application of *pesticides* to the temporary crops was estimated to be 616.35 thousand hectares or 98.75% while to the permanent crops it was only 7.83 thousand hectares or 1.25% of the total area under pesticide. Moreover, out of the total *pesticide* applied area, the largest proportion was reported under teff (51.03%) followed by wheat that is 25.45%. (Refer to Table 1.1).

Table 1.1 Total Improved Seed Applied Area

As indicated in Table 1.1, the total cultivated area of all crops is about 8,825.40 thousand hectares.

1.4 Total Fertilized Area.

From this crop area improved seed was applied only on 162.38 thousand hectares (1.82%). Though fertilizer is one of the very important agricultural inputs used to facilitate the growth of crops and to increase productivity, only 2,844.86 thousand hectares (32.23%) of the total cultivated land, was fertilized at national level (See Summary Table a above).

Out of the total area under improved seed, 123.52 thousand hectares was under temporary crops and 11.86 thousand hectares was under permanent crops. For details refer to Table 1.1.

Out of the total fertilized area, 2,670.68 thousand hectares was reported under temporary crops and the other 174.18 thousand hectares was under permanent crops.

Area Fertilized
2,670.68
174.18
2,844.86

The largest proportion of area irrigated i.e. 27.81% and 8.6% respectively (Refer to Table 1.1).

TABLE 1.1

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

NATIONAL

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	6,688.56	75.79	152.52	92.22	39.22	57.50	604.05	96.77	2,501.98	87.95
Teff	2,167.77	24.56	37.24	22.52	4.79	7.02	318.55	51.03	1,175.65	41.33
Barely	697.67	7.91	1.01	.61	**	**	34.64	5.55	207.60	7.30
Wheat	772.23	8.75	50.29	30.41	.80	1.17	158.83	25.45	443.69	15.60
Maize	1,316.87	14.92	60.34	36.49	13.69	20.07	23.45	3.76	445.52	15.66
Sorghum	1,399.95	15.86	3.64	2.20	18.97	27.81	62.78	10.06	107.98	3.80
Millet	290.66	3.29	-	-	**	**	2.93	.47	102.39	3.60
Oats	43.41	.49	-	-	**	**	**	**	19.15	.67
PULSES	905.35	10.26	**	**	**	**	8.78	1.41	78.10	2.75
Horse Beans	329.31	3.73	**	**	**	**	2.11	.34	41.45	1.46
Field Peas	158.11	1.79	-	-	**	**	**	**	13.72	.48
Haricot Beans	112.81	1.28	**	**	**	**	**	**	11.99	.42
Chick Peas	147.90	1.68	**	**	**	**	**	**	4.88	.17
Lentils	52.81	.60	**	**	**	**	**	**	3.65	.13
Vetch	104.41	1.18	**	**	**	**	**	**	2.41	.08
OILSEEDS	461.21	5.23	**	**	**	**	**	**	33.04	1.16
Neug	250.52	2.84	-	-	-	-	**	**	9.37	.33
Lin Seed	148.17	1.68	-	-	-	-	**	**	6.03	.21
Rape seed	21.40	.24	**	**	**	**	**	-	**	**
Ground Nuts	17.43	.20	**	**	**	**	**	**	**	**
Sun Flower	5.17	.06	-	-	**	**	**	**	**	**
Sesame	18.50	.21	-	-	**	**	**	**	**	**
Castor Bean	**	**	-	-	-	-	-	-	**	**
OTHERS	178.52	2.02	**	**	3.65	5.35	.79	.13	57.56	2.02
Fenugreek	17.26	.20	-	-	-	-	-	-	.86	.03
Spices	53.98	.61	-	-	.54	.79	**	**	21.99	.77
Potatoes	33.36	.38	-	-	**	**	**	**	13.94	.49
Other Temporary	73.92	.84	**	**	2.34	3.43	.38	.06	20.77	.73
ALL TEMPORARY	8,233.64	93.29	153.52	92.83	46.74	68.52	616.35	98.75	2,670.68	93.88
Chat	81.23	.92	-	-	4.53	6.64	2.00	.32	25.14	.88
Coffee	191.63	2.17	11.74	7.10	6.11	8.96	**	**	27.92	.98
Enset	260.00	2.95	-	-	**	**	**	**	112.98	3.97
Cotton	16.21	.18	-	-	**	**	**	**	.30	.01
Tobacco	2.09	.02	-	-	**	**	-	-	.31	.01
Fruits	17.74	.20	**	**	3.87	5.67	**	**	2.74	.10
Other Permanent	22.86	.26	**	**	4.61	6.76	**	**	4.79	.17
TOTAL PERMANENT	591.76	6.71	11.86	7.17	21.47	31.48	7.83	1.25	174.18	6.12
ALL CROPS	8,825.40	100.00	165.38	100.00	68.21	100.00	624.18	100.00	2,844.86	100.00

FIG 1. ESTIMATES OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA FOR MAJOR CROPS OF PRIVATE PEASANT HOLDINGS, NATIONAL, 1996/97(1989 E.C.)

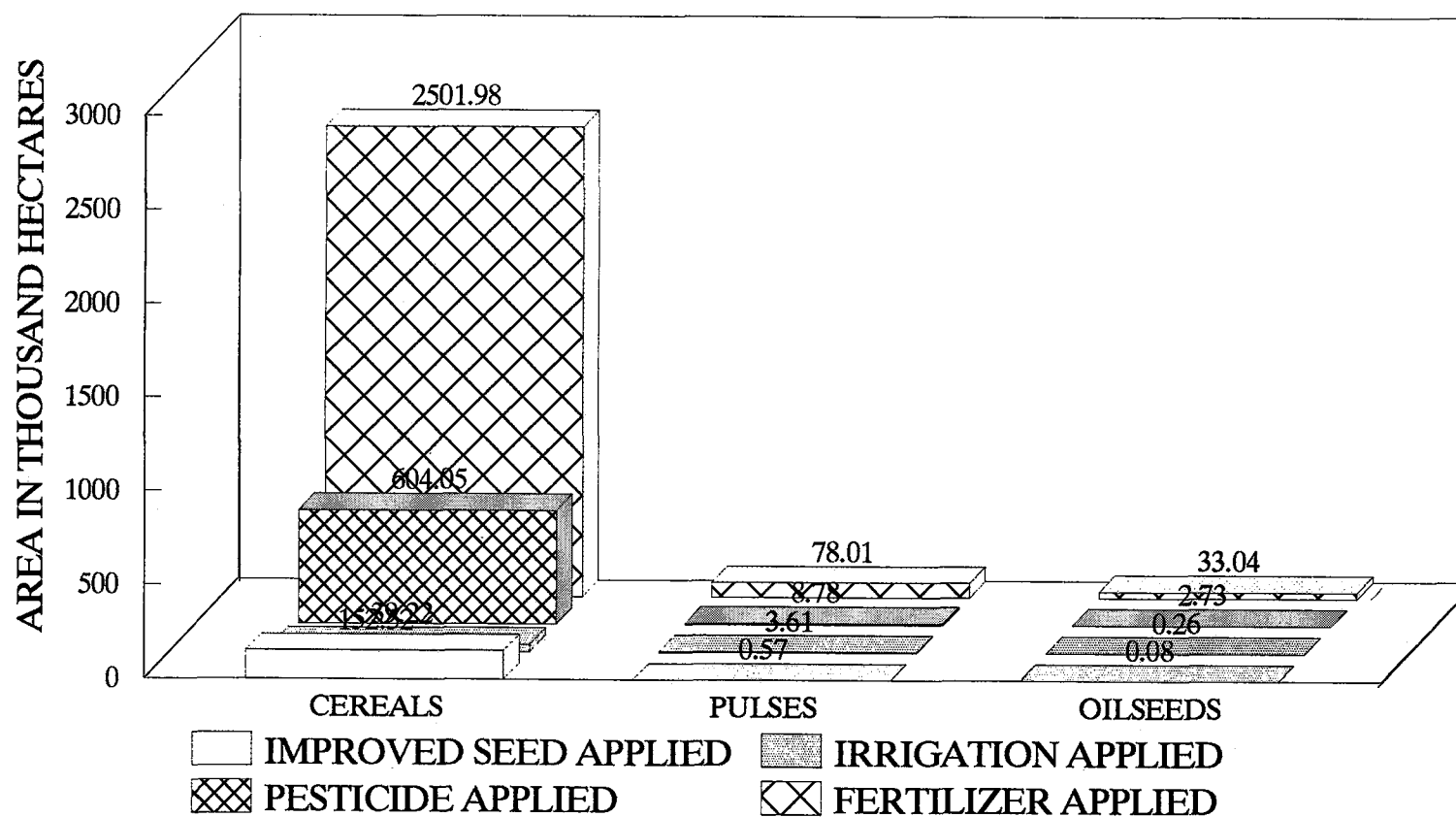


TABLE 1.2

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY REGION FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

('000 HA)

REGION	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
TIGRAY	483.85	5.48	5.15	3.11	8.82	12.93	43.21	6.92	113.56	3.99
AFAR	30.32	.34	-	-	.52	.76	.36	.06	2.54	.09
AMHARA	3,154.81	35.75	50.92	30.79	23.52	34.48	42.90	6.87	797.26	28.02
OROMIYA	3,940.06	44.64	87.14	52.69	22.57	33.08	428.60	68.67	1,475.41	51.86
SOMALIE	56.58	.64	5.47	3.31	2.25	3.30	.77	.12	2.74	.10
BENSHANGUL-GUMUZ	114.16	1.29	.12	.07	.72	1.06	.05	.01	7.91	.28
S.N.N.P.R.	1,015.10	11.50	15.98	9.66	8.57	12.56	106.80	17.11	432.46	15.20
GAMBELA	6.57	.07	.26	.16	-	-	.01	-	.06	-
HARARI	7.86	.09	.04	.02	.45	.66	.73	.12	3.61	.13
ADDIS ABABA	9.76	.11	.21	.13	.01	.01	.33	.05	8.04	.28
DIRE DAWA	6.31	.07	.10	.06	.79	1.16	.39	.06	1.29	.05
TOTAL	8,825.38	100.00	165.39	100.00	68.22	100.00	624.15	100.00	2,844.88	100.00

TABLE 1.3

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS -
1996/97(1989 E.C.)

TIGRAY

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	448.76	92.75	5.06	98.25	**	**	42.75	98.94	111.05	97.77
Teff	99.50	20.56	2.72	52.82	1.94	21.97	3.19	7.38	29.73	26.18
Barely	55.54	11.48	**	**	-	-	**	**	14.87	13.09
Wheat	55.36	11.44	**	**	**	**	**	**	15.69	13.81
Maize	41.74	8.63	**	**	**	**	**	**	20.08	17.68
Sorghum	141.19	29.18	-	-	**	**	**	**	25.26	22.24
Millet	55.43	11.46	-	-	**	**	**	**	5.42	4.77
Oats	**	**	-	-	-	-	-	-	-	-
PULSES	27.85	5.76	**	**	**	**	**	**	2.29	2.02
Horse Beans	10.11	2.09	-	-	**	**	-	-	**	**
Field Peas	2.40	.50	-	-	**	**	-	-	**	**
Haricot Beans	.55	.11	-	-	-	-	-	-	**	**
Chick Peas	4.62	.95	-	-	-	-	**	**	**	**
Lentils	3.89	.80	-	-	-	-	-	-	**	**
Vetch	**	**	**	**	-	-	**	**	-	-
OILSEEDS	4.88	1.01	-	-	-	-	**	**	**	**
Neug	**	.03	-	-	-	-	-	-	-	-
Lin Seed	2.19	.45	-	-	-	-	-	-	**	**
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	**	**	-	-	-	-	**	**	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	**	**	**	**	-	-
Fenugreek	**	**	-	-	-	-	-	-	-	-
Spices	**	**	-	-	**	**	**	**	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Temporary	**	**	-	-	-	-	-	-	-	-
ALL TEMPORARY	483.29	99.88	5.15	100.00	**	**	43.20	99.98	113.46	99.89
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	**	**	-	-	**	**	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	**	**	-	-	-	-
Other Permanent	**	**	-	-	**	**	**	**	**	**
TOTAL PERMANENT	**	**	-	-	**	**	**	**	**	**
ALL CROPS	483.85	100.00	5.15	100.00	**	**	43.21	100.00	113.58	100.00

TABLE 1.4

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

Afar

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	29.37	96.80	-	-	**	**	**	**	**	**
Teff	**	**	-	-	**	**	**	**	**	**
Barely	**	**	-	-	-	-	-	-	**	**
Wheat	**	**	-	-	-	-	-	-	**	**
Maize	1.47	4.85	-	-	**	**	-	-	**	**
Sorghum	19.86	65.46	-	-	**	**	**	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	-	-	-	-	**	**	-	-
Horse Beans	**	**	-	-	-	-	-	-	-	-
Field Peas	**	**	.03	-	-	-	-	-	-	-
Haricot Beans	**	-	-	-	-	-	-	-	-	-
Chick Peas	**	**	1.02	-	-	-	-	.01	2.70	-
Lentils	**	**	.03	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	.10	-	**	**	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	.03	-	**	**	-	-	-	-
Sesame	**	**	.07	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	**	**	-	-	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	-	-	**	**	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Temporary	**	**	-	-	-	-	-	-	-	-
ALL TEMPORARY	29.98	98.81	-	-	**	**	**	**	**	**
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	**	**	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	-	-	**	**	**	**	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	**	**	**	**	-	-
Other Permanent	**	**	-	-	**	**	-	-	**	**
TOTAL PERMANENT	**	**	**	**	.03	6.00	**	**	**	**
ALL CROPS	30.34	100.00	**	**	**	**	**	**	**	**

TABLE 1.5

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

AMHARA

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	2,487.41	78.85	50.64	99.47	**	**	40.18	93.68	745.15	93.47
Teff	903.19	28.63	22.64	44.47	1.87	7.95	14.39	33.55	408.07	51.18
Barely	244.01	7.73	-	-	**	**	**	**	29.19	3.66
Wheat	212.02	6.72	19.10	37.52	**	**	3.06	7.13	68.64	8.61
Maize	316.25	10.02	8.42	16.54	**	**	4.05	9.44	143.80	18.04
Sorghum	626.22	19.85	**	**	**	**	17.71	41.29	15.32	1.92
Millet	176.49	5.59	-	-	-	-	**	**	79.78	10.01
Oats	9.23	.29	-	-	**	**	-	-	**	**
PULSES	386.06	12.24	**	**	**	**	**	**	17.00	2.13
Horse Beans	129.77	4.11	-	-	**	**	**	**	8.39	1.05
Field Peas	55.95	1.77	-	-	-	-	**	**	4.64	.58
Haricot Beans	20.21	.64	-	-	-	-	-	-	**	**
Chick Peas	98.83	3.13	-	-	**	**	-	-	**	**
Lentils	28.70	.91	-	-	**	**	**	**	**	**
Vetch	52.60	1.67	**	**	**	**	-	-	**	**
OILSEEDS	201.62	6.39	**	**	**	**	**	**	17.80	2.23
Neug	133.85	4.24	-	-	-	-	**	**	7.20	.90
Lin Seed	44.83	1.42	-	-	-	-	**	**	**	**
Rape seed	9.01	.29	**	**	**	**	**	**	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	4.74	.15	-	-	-	-	**	**	**	**
Sesame	**	**	-	-	-	-	-	-	**	**
Castor Bean	**	**	-	-	-	-	-	-	**	**
OTHERS	52.22	1.66	**	**	**	**	**	**	10.49	1.32
Fenugreek	6.13	.19	-	-	-	-	-	-	**	**
Spices	19.84	.63	-	-	.14	.60	**	**	4.24	.53
Potatoes	17.35	.55	-	-	**	**	**	**	5.16	.65
Other Temporary	8.90	.28	**	**	.22	.94	-	-	.95	.12
ALL TEMPORARY	3,127.31	99.13	50.88	99.94	17.32	73.64	42.70	99.56	790.44	99.15
Chat	7.09	.13	-	-	**	**	-	-	**	**
Coffee	**	**	**	**	3.22	13.69	**	**	2.11	.26
Enset	**	**	-	-	-	-	-	-	-	-
Cotton	**	**	-	-	-	-	-	-	.27	.03
Tobacco	**	**	-	-	-	-	-	-	**	**
Fruits	.73	.02	-	-	.39	1.66	-	-	.23	.03
Other Permanent	9.15	.29	-	-	2.04	8.67	**	**	1.62	.20
TOTAL PERMANENT	27.49	.87	**	**	6.20	26.36	**	**	6.81	.85
ALL CROPS	3,154.80	100.00	50.91	100.00	23.52	100.00	42.89	100.00	797.25	100.00

TABLE 1.5.1

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

NORTH AND SOUTH GONDAR Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	788.53	77.30	21.66	100.00	**	**	6.77	96.85	124.51	95.32
Teff	273.48	26.81	17.34	80.06	**	**	3.47	49.64	70.97	54.33
Barely	76.29	7.48	-	-	**	**	**	**	**	**
Wheat	40.93	4.01	**	**	-	-	**	**	5.44	4.16
Maize	79.26	7.77	**	**	-	-	**	**	24.23	18.55
Sorghum	236.08	23.14	**	**	-	-	**	**	**	**
Millet	81.43	7.98	-	-	-	-	-	-	20.23	15.49
Oats	**	**	-	-	-	-	-	-	-	-
PULSES	115.64	11.34	-	-	**	**	**	**	**	**
Horse Beans	39.44	3.87	-	-	-	-	**	**	**	**
Field Peas	12.84	1.26	-	-	-	-	-	-	-	-
Haricot Beans	**	**	-	-	-	-	-	-	-	-
Chick Peas	34.72	3.40	-	-	**	**	-	-	**	**
Lentils	3.45	.34	-	-	**	**	-	-	-	-
Vetch	13.82	1.35	-	-	**	**	-	-	-	-
OILSEEDS	86.01	8.43	-	-	-	-	**	**	.79	.60
Neug	65.56	6.43	-	-	-	-	-	-	**	**
Lin Seed	9.61	.94	-	-	-	-	-	-	**	**
Rape seed	1.29	.13	-	-	-	-	-	-	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	2.42	.24	-	-	-	-	**	**	**	**
Sesame	**	**	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	22.16	2.17	-	-	**	**	**	**	**	**
Fenugreek	**	**	-	-	-	-	-	-	**	**
Spices	8.71	.85	-	-	**	**	**	**	1.23	.94
Potatoes	10.14	.99	-	-	-	-	-	-	**	**
Other Temporary	**	**	-	-	**	**	-	-	**	**
ALL TEMPORARY	1,012.34	99.24	21.66	100.00	**	**	6.99	100.00	129.57	99.20
Chat	**	**	-	-	-	-	-	-	**	**
Coffee	1.06	.10	-	-	**	**	-	-	**	**
Enset	**	**	-	-	-	-	-	-	-	-
Cotton	**	**	-	-	-	-	-	-	**	**
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	**	**	-	-	**	**
Other Permanent	2.22	.22	-	-	**	**	-	-	.68	.52
TOTAL PERMANENT	7.71	.76	-	-	**	**	-	-	1.05	.80
ALL CROPS	1,020.05	100.00	21.66	100.00	**	**	6.99	100.00	130.62	100.00

TABLE 1.5.2

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

• EAST, WEST GOJAM AND AGEWAWI Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	873.74	78.80	15.90	98.57	**	**	5.65	92.78	500.40	93.69
Teff	394.60	35.59	2.22	13.76	**	**	**	**	275.28	51.54
Barely	70.02	6.32	-	-	**	**	**	**	17.76	3.33
Wheat	64.16	5.79	**	**	-	-	**	**	32.45	6.08
Maize	194.05	17.50	7.56	46.87	**	**	**	**	114.13	21.37
Sorghum	59.42	5.36	-	-	-	-	-	-	**	**
Millet	90.65	8.18	-	-	-	-	**	**	59.16	11.08
Oats	**	**	-	-	-	-	-	-	-	-
PULSES	109.63	9.89	**	**	**	**	**	**	9.96	1.86
Horse Beans	34.17	3.08	-	-	-	-	**	**	6.03	1.13
Field Peas	15.98	1.44	-	-	-	-	-	-	3.22	.60
Haricot Beans	**	**	-	-	-	-	-	-	**	**
Chick Peas	29.44	2.66	-	-	**	**	-	-	**	**
Lentils	**	**	-	-	-	-	-	-	-	-
Vetch	24.26	2.19	**	**	**	**	-	-	-	-
OILSEEDS	96.60	8.71	**	**	**	**	**	**	16.77	3.14
Neug	65.71	5.93	-	-	-	-	**	**	6.91	1.29
Lin Seed	20.56	1.85	-	-	-	-	-	-	**	**
Rape seed	**	**	**	**	**	**	**	**	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	-	-	-	-	**	**
Sesame	**	**	-	-	-	-	-	-	**	**
Castor Bean	.01	-	-	-	-	-	-	-	**	**
OTHERS	21.77	1.96	**	**	**	**	**	**	5.91	1.11
Fenugreek	.66	.06	-	-	-	-	-	-	-	-
Spices	7.49	.68	-	-	.05	1.24	-	-	2.08	.39
Potatoes	7.05	.64	-	-	**	**	**	**	**	**
Other Temporary	6.57	.59	**	**	**	**	-	-	.80	.15
ALL TEMPORARY	1,101.74	99.37	16.11	99.88	2.42	60.05	6.07	99.67	533.04	99.80
Chat	**	**	-	-	-	-	-	-	-	-
Coffee	**	**	**	**	**	**	**	**	**	**
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	-	-	-	-	-	-	**	**
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	**	**	-	-	**	**
Other Permanent	3.70	.33	-	-	**	**	-	-	.79	.15
TOTAL PERMANENT	7.01	.63	.02	.12	**	**	**	**	1.05	.20
ALL CROPS	1,108.75	100.00	16.13	100.00	4.03	100.00	6.09	100.00	534.09	100.00

TABLE 1.5.3

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

NORTH WOLO AND WAGHAMRA Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	216.63	83.02	3.31	100.00	**	**	11.74	96.23	9.94	94.67
Teff	68.02	26.07	**	**	**	**	3.97	32.54	3.75	35.71
Barely	33.25	12.74	-	-	**	**	**	**	2.19	20.86
Wheat	24.25	9.29	**	**	**	**	**	**	**	**
Maize	2.73	1.05	-	-	**	**	**	**	**	**
Sorghum	85.42	32.74	-	-	**	**	**	**	**	**
Millet	1.64	.63	-	-	-	-	**	**	-	-
Oats	**	**	-	-	-	-	-	-	**	**
PULSES	36.17	13.86	-	-	**	**	**	**	**	**
Horse Beans	10.00	3.83	-	-	-	-	-	-	**	**
Field Peas	8.77	3.36	-	-	-	-	**	**	-	-
Haricot Beans	**	**	-	-	-	-	-	-	-	-
Chick Peas	8.25	3.16	-	-	-	-	-	-	-	-
Lentils	6.61	2.53	-	-	**	**	**	**	-	-
Vetch	**	**	-	-	-	-	-	-	-	-
OILSEEDS	4.16	1.59	-	-	-	-	**	**	**	**
Neug	.45	.17	-	-	-	-	**	**	-	-
Lin Seed	3.11	1.19	-	-	-	-	**	**	**	**
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	-	-	-	-	-	-
Sesame	**	**	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	1.61	.62	-	-	**	**	-	-	**	**
Fenugreek	**	**	-	-	-	-	-	-	-	-
Spices	.56	.21	-	-	**	**	-	-	**	**
Potatoes	**	**	-	-	-	-	-	-	**	**
Other Temporary	.20	.08	-	-	**	**	-	-	**	**
ALL TEMPORARY	258.57	99.09	3.31	100.00	**	**	12.20	100.00	10.48	99.81
Chat	**	**	-	-	-	-	-	-	-	-
Coffee	**	**	**	**	**	**	-	-	**	**
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	-	-	-	-	**	**
Other Permanent	**	**	-	-	**	**	-	-	**	**
TOTAL PERMANENT	**	**	**	**	**	**	-	-	**	**
ALL CROPS	260.94	100.00	3.31	100.00	**	**	12.20	100.00	10.50	100.00

TABLE 1.5.4

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

SOUTH WOLO, OROMIA AND NORTH SHEWA Zone

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	608.52	79.54	9.77	99.49	2.72	42.37	16.02	90.92	110.27	90.37
Teff	167.08	21.84	**	**	**	**	**	**	58.07	47.59
Barely	64.45	8.42	-	-	**	**	**	**	**	**
Wheat	82.69	10.81	7.15	72.81	**	**	**	**	**	**
Maize	40.21	5.26	-	-	**	**	**	**	5.32	4.36
Sorghum	245.31	32.06	-	-	**	**	**	**	9.73	7.97
Millet	2.77	.36	-	-	-	-	-	-	**	**
Oats	6.01	.79	-	-	**	**	-	-	**	**
PULSES	124.65	16.29	-	-	-	-	**	**	**	**
Horse Beans	46.16	6.03	-	-	-	-	**	**	1.97	1.61
Field Peas	18.37	2.40	-	-	-	-	**	**	**	**
Haricot Beans	2.70	.35	-	-	-	-	-	-	**	**
Chick Peas	26.42	3.45	-	-	-	-	-	-	**	**
Lentils	18.39	2.40	-	-	-	-	**	**	**	**
Vetch	12.61	1.65	-	-	-	-	-	-	**	**
OILSEEDS	14.85	1.94	-	-	-	-	-	-	**	**
Neug	**	**	-	-	-	-	-	-	-	-
Lin Seed	11.56	1.51	-	-	-	-	-	-	**	**
Rape seed	**	**	-	-	-	-	-	-	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	-	-	-	-	**	**
Sesame	**	**	-	-	-	-	-	-	**	**
Castor Bean	**	**	-	-	-	-	-	-	-	-
OTHERS	6.69	.87	**	**	**	**	**	**	.96	.79
Fenugreek	2.53	.33	-	-	-	-	-	-	**	**
Spices	3.09	.40	-	-	-	-	**	**	.69	.57
Potatoes	**	**	-	-	**	**	-	-	**	**
Other Temporary	.92	.12	**	**	**	**	-	-	**	**
ALL TEMPORARY	754.71	98.64	9.80	99.80	2.83	44.08	17.45	99.04	117.33	96.16
Chat	**	**	-	-	**	**	-	-	**	**
Coffee	3.39	.44	**	**	**	**	-	-	1.81	1.48
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	-	-	-	-	-	-	-	-
Tobacco	**	**	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	**	**	-	-	**	**
Other Permanent	2.43	.32	-	-	**	**	**	**	**	**
TOTAL PERMANENT	10.37	1.36	**	**	3.59	55.92	**	**	4.69	3.84
ALL CROPS	765.08	100.00	9.82	100.00	6.42	100.00	17.62	100.00	122.02	100.00

TABLE 1.6

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	2,986.92	75.81	78.83	90.44	**	**	417.61	97.44	1,373.25	93.07
Teff	952.67	24.18	9.68	11.11	.93	4.12	249.46	58.20	634.27	42.99
Barely	343.64	8.72	**	**	**	**	30.07	7.02	143.87	9.75
Wheat	431.75	10.96	27.12	31.12	**	**	111.82	26.09	301.99	20.47
Maize	751.84	19.08	40.94	46.97	**	**	13.79	3.22	214.00	14.50
Sorghum	426.42	10.82	**	**	**	**	**	**	45.60	3.09
Millet	46.70	1.19	-	-	-	-	**	**	14.75	1.00
Oats	33.90	.86	-	-	-	-	**	**	18.77	1.27
PULSES	395.49	10.04	**	**	**	**	**	**	40.33	2.73
Horse Beans	148.26	3.76	**	**	-	-	1.38	.32	23.64	1.60
Field Peas	73.82	1.87	-	-	-	-	**	**	5.49	.37
Haricot Beans	68.88	1.75	**	**	**	**	**	**	5.11	.35
Chick Peas	40.96	1.04	-	-	**	**	**	**	**	**
Lentils	18.84	.48	**	**	-	-	**	**	2.13	.14
Vetch	44.73	1.14	-	-	-	-	-	-	1.58	.11
OILSEEDS	232.64	5.90	-	-	**	**	**	**	**	**
Neug	102.85	2.61	-	-	-	-	-	-	2.16	.15
Lin Seed	100.59	2.55	-	-	-	-	**	**	3.73	.25
Rape seed	**	**	-	-	**	**	-	-	**	**
Ground Nuts	**	**	-	-	**	**	-	-	**	**
Sun Flower	**	**	-	-	-	-	-	-	**	**
Sesame	**	**	-	-	**	**	-	-	**	**
Castor Bean	**	**	-	-	-	-	-	-	**	**
OTHERS	58.84	1.49	**	**	1.80	7.97	**	**	14.44	.98
Fenugreek	**	**	-	-	-	-	-	-	**	**
Spices	9.90	.25	-	-	**	**	-	-	1.61	.11
Potatoes	11.07	.28	-	-	**	**	-	-	**	**
Other Temporary	27.44	.70	**	**	1.50	6.64	**	**	6.59	.45
ALL TEMPORARY	3,673.89	93.24	79.16	90.82	**	**	426.11	99.42	1,442.69	97.78
Chat	56.43	1.43	-	-	2.93	12.98	1.23	.29	13.92	.94
Coffee	108.24	2.75	7.97	9.14	**	**	**	**	3.88	.26
Enset	85.55	2.17	-	-	**	**	**	**	12.69	.86
Cotton	**	**	-	-	-	-	-	-	**	**
Tobacco	1.61	.04	-	-	**	**	-	-	**	**
Fruits	7.04	.18	**	**	**	**	**	**	.93	.06
Other Permanent	7.27	.18	**	**	**	**	-	-	1.14	.08
TOTAL PERMANENT	266.18	6.76	8.00	9.18	7.24	32.06	2.49	.58	32.74	2.22
ALL CROPS	3,940.07	100.00	87.16	100.00	22.58	100.00	428.60	100.00	1,475.43	100.00

TABLE 1.6.1

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

EAST AND WEST WELEGA Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	502.98	75.68	18.35	95.57	**	**	11.01	99.46	207.96	93.66
Teff	171.05	25.74	**	**	-	-	3.18	28.73	117.82	53.06
Barely	24.09	3.62	-	-	**	**	-	-	2.43	1.09
Wheat	34.17	5.14	2.13	11.09	-	-	1.46	13.19	8.53	3.84
Maize	166.41	25.04	13.80	71.88	**	**	**	**	59.78	26.92
Sorghum	70.09	10.55	**	**	-	-	**	**	5.10	2.30
Millet	36.36	5.47	-	-	-	-	-	-	14.29	6.44
Oats	**	**	.81	.12	-	-	-	-	**	**
PULSES	43.16	6.49	**	**	-	-	-	-	6.06	2.73
Horse Beans	24.89	3.75	-	-	-	-	-	-	3.93	1.77
Field Peas	10.35	1.56	-	-	-	-	-	-	**	**
Haricot Beans	7.51	1.13	-	-	-	-	-	-	.71	.32
Chick Peas	**	**	-	-	-	-	-	-	-	-
Lentils	**	**	**	**	-	-	-	-	**	**
Vetch	.10	.02	-	-	-	-	-	-	**	**
OILSEEDS	65.19	9.81	-	-	**	**	-	-	4.28	1.93
Neug	59.39	8.94	-	-	-	-	-	-	**	**
Lin Seed	**	**	-	-	-	-	-	-	**	**
Rape seed	1.29	.19	-	-	**	**	-	-	.58	.26
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	-	-	-	-	-	-
Sesame	1.52	.23	-	-	-	-	-	-	-	-
Castor Bean	**	**	-	-	-	-	-	-	-	-
OTHERS	8.58	1.29	**	**	**	**	-	-	2.41	1.09
Fenugreek	.30	.05	-	-	-	-	-	-	**	**
Spices	3.11	.47	-	-	**	**	-	-	.87	.39
Potatoes	2.70	.41	-	-	**	**	-	-	1.06	.48
Other Temporary	2.47	.37	**	**	**	**	-	-	.45	.20
ALL TEMPORARY	619.91	93.27	18.38	95.73	**	**	11.01	99.46	220.71	99.40
Chat	.79	.12	-	-	**	**	-	-	.04	.02
Coffee	39.34	5.92	**	**	**	**	**	**	**	**
Enset	.42	.06	-	-	-	-	-	-	**	**
Cotton	**	**	-	-	-	-	-	-	-	-
Tobacco	**	**	-	-	-	-	-	-	**	**
Fruits	1.96	.29	-	-	**	**	-	-	.32	.14
Other Permanent	1.09	.16	**	**	**	**	-	-	.32	.14
TOTAL PERMANENT	44.70	6.73	**	**	**	**	**	**	1.33	.60
ALL CROPS	664.61	100.00	19.20	100.00	.58	100.00	11.07	100.00	222.04	100.00

TABLE 1.6.2

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

ILUBABOR AND JIMA Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	439.89	78.00	10.19	77.79	**	**	66.50	99.25	141.88	94.44
Teff	173.28	30.73	**	**	**	**	61.91	92.40	86.25	57.41
Barely	15.49	2.75	-	-	-	-	**	**	**	**
Wheat	9.40	1.67	-	-	-	-	.79	1.18	**	**
Maize	177.29	31.44	9.58	73.13	**	**	1.00	1.49	46.81	31.16
Sorghum	54.62	9.68	-	-	-	-	.97	1.45	**	**
Millet	8.95	1.59	-	-	-	-	**	**	**	**
Oats	**	**	-	-	-	-	-	-	**	**
PULSES	39.00	6.92	**	**	-	-	**	**	**	**
Horse Beans	19.51	3.46	**	**	-	-	**	**	**	**
Field Peas	7.31	1.30	-	-	-	-	**	**	**	**
Haricot Beans	8.60	1.52	-	-	-	-	**	**	**	**
Chick Peas	**	**	-	-	-	-	-	-	-	-
Lentils	**	**	-	-	-	-	-	-	**	**
Vetch	**	**	-	-	-	-	-	-	-	-
OILSEEDS	8.07	1.43	-	-	-	-	**	**	**	**
Neug	5.11	.91	-	-	-	-	-	-	-	-
Lin Seed	2.94	.52	-	-	-	-	**	**	**	**
Rape seed	**	**	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	**	**	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	10.92	1.94	**	**	**	**	**	**	**	**
Fenugreek	**3	**6	-	-	-	-	-	-	-	-
Spices	2.13	.38	-	-	-	-	-	-	**	**
Potatoes	.04	.01	-	-	-	-	-	-	-	-
Other Temporary	8.42	1.49	**	**	**	**	**	**	**	**
ALL TEMPORARY	497.88	88.28	10.22	78.02	**	**	66.89	99.84	145.28	96.70
Chat	6.22	1.10	-	-	**	**	-	-	1.28	.85
Coffee	47.09	8.35	**	**	-	-	**	**	.75	.50
Enset	9.86	1.75	-	-	-	-	**	**	2.53	1.68
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	.02	-	-	-	-	-	-	-	**	**
Fruits	2.36	.42	**	**	-	-	-	-	.25	.17
Other Permanent	.54	.10	-	-	-	-	-	-	.14	.09
TOTAL PERMANENT	66.09	11.72	**	**	**	**	**	**	4.96	3.30
ALL CROPS	563.97	100.00	13.10	100.00	**	**	67.00	100.00	150.24	100.00

TABLE 1.6.3

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

NORTH AND WEST SHEWA Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	724.95	78.68	19.27	100.00		**	159.04	97.74	357.19	95.96
Teff	324.27	35.19	6.81	35.34		**	97.77	60.09	221.30	59.45
Barely	141.72	15.38	.49	2.54		**	16.30	10.02	37.84	10.17
Wheat	127.76	13.87	11.56	59.99		-	43.16	26.53	83.17	22.34
Maize	38.52	4.18	.41	2.13		**	.78	.48	10.83	2.91
Sorghum	92.10	10.00	-	-		**	.99	.61	3.94	1.06
Millet	-	-	-	-		-	-	-	-	-
Oats	.58	.06	-	-		-	.04	.02	.11	.03
PULSES	127.76	13.87	-	-		**	1.11	.68	6.81	1.83
Horse Beans	46.04	5.00	-	-		-	.69	.42	4.03	1.08
Field Peas	16.67	1.81	-	-		-	-	-	.93	.25
Haricot Beans	-	-	-	-		-	-	-	-	-
Chick Peas	23.73	2.58	-	-		**	.35	.22	.33	.09
Lentils	12.09	1.31	-	-		-	.07	.04	.86	.23
Vetch	29.23	3.17	-	-		-	-	-	.66	.18
OILSEEDS	55.41	6.01	-	-		-	2.30	1.41	.66	.18
Neug	29.66	3.22	-	-		-	-	-	.33	.09
Lin Seed	22.31	2.42	-	-		-	2.30	1.41	.26	.07
Rape seed	3.32	.36	-	-		-	-	-	.07	.02
Ground Nuts	-	-	-	-		-	-	-	-	-
Sun Flower	.12	.01	-	-		-	-	-	-	-
Sesame	-	-	-	-		-	-	-	-	-
Castor Bean	-	-	-	-		-	-	-	-	-
OTHERS	1.90	.21	-	-		**	-	-	1.02	.27
Fenugreek	.52	.06	-	-		-	-	-	.13	.03
Spices	.17	.02	-	-		**	-	-	.13	.03
Potatoes	.18	.02	-	-		**	-	-	.15	.04
Other Temporary	1.03	.11	-	-		**	-	-	.61	.16
ALL TEMPORARY	910.02	98.76	19.27	100.00	1.76	83.02	162.45	99.84	365.68	98.24
Chat	1.39	.15	-	-		**	.14	.09	1.19	.32
Coffee	.01	-	-	-		-	-	-	.01	-
Enset	9.04	.98	-	-		**	.12	.07	5.06	1.36
Cotton	-	-	-	-		-	-	-	-	-
Tobacco	.03	-	-	-		-	-	-	.01	-
Fruits	.08	.01	-	-		**	-	-	.01	-
Other Permanent	.83	.09	-	-		**	-	-	.26	.07
TOTAL PERMANENT	11.38	1.24	-	-		**	.26	.16	6.54	1.76
ALL CROPS	921.40	100.00	19.27	100.00	2.12	100.00	162.71	100.00	372.22	100.00

TABLE 1.6.4

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

EAST SHEWA, ARSI, BALE AND BORENA Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	1,022.22	73.95	27.44	87.67	**	**	170.73	96.91	601.42	92.98
Teff	267.56	19.36	-	-	-	-	86.36	49.02	203.46	31.45
Barely	153.23	11.09	-	-	-	-	13.52	7.67	98.08	15.16
Wheat	254.21	18.39	12.51	39.97	-	-	66.26	37.61	205.06	31.70
Maize	256.32	18.54	**	**	**	**	**	**	74.09	11.45
Sorghum	60.58	4.38	-	-	-	-	-	-	**	**
Millet	**	**	-	-	-	-	**	**	**	**
Oats	29.66	2.15	-	-	-	-	**	**	18.45	2.85
PULSES	158.22	11.45	**	**	-	-	**	**	23.39	3.62
Horse Beans	46.25	3.35	-	-	-	-	**	**	**	**
Field Peas	36.50	2.64	-	-	-	-	**	**	2.66	.41
Haricot Beans	42.00	3.04	**	**	-	-	-	-	1.95	.30
Chick Peas	**	**	-	-	-	-	-	-	**	**
Lentils	5.37	.39	-	-	-	-	**	**	.89	.14
Vetch	**	**	-	-	-	-	-	-	**	**
OILSEEDS	87.73	6.35	-	-	-	-	-	-	**	**
Neug	**	**	-	-	-	-	-	-	-	-
Lin Seed	71.48	5.17	-	-	-	-	-	-	**	**
Rape seed	**	**	-	-	-	-	-	-	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	-	-	-	-	**	**
Sesame	**	**	-	-	-	-	-	-	**	**
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	24.30	1.76	-	-	**	**	-	-	**	**
Fenugreek	**	**	-	-	-	-	-	-	**	**
Spices	3.77	.27	-	-	-	-	-	-	**	**
Potatoes	**	**	-	-	-	-	-	-	**	**
Other Temporary	5.75	.42	-	-	**	**	-	-	2.50	.39
ALL TEMPORARY	1,292.47	93.51	27.69	88.47	**	**	175.24	99.47	640.25	98.98
Chat	**	**	-	-	-	-	-	-	**	**
Coffee	**	**	**	**	**	**	**	**	**	**
Enset	66.23	4.79	-	-	**	**	**	**	**	**
Cotton	**	**	-	-	-	-	-	-	**	**
Tobacco	**	**	-	-	**	**	-	-	**	**
Fruits	**	**	-	-	-	-	-	-	-	-
Other Permanent	**	**	-	-	**	**	-	-	**	**
TOTAL PERMANENT	89.76	6.49	**	**	**	**	**	**	**	**
ALL CROPS	1,382.23	100.00	31.30	100.00	**	**	176.18	100.00	646.86	100.00

TABLE 1.6.5

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

EAST AND WEST HARERGE Zone

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	296.88	72.80	3.56	83.18	**	**	**	**	64.78	77.10
Teff	16.51	4.05	-	-	**	**	**	**	5.44	6.47
Barely	9.11	2.23	-	-	-	-	-	-	**	**
Wheat	6.21	1.52	**	**	**	**	**	**	2.96	3.52
Maize	113.30	27.78	**	**	**	**	**	**	22.48	26.76
Sorghum	149.03	36.54	**	**	**	**	**	**	32.67	38.88
Millet	**	**	-	-	-	-	-	-	**	**
Oats	**	**	-	-	-	-	-	-	**	**
PULSES	27.36	6.71	**	**	**	**	**	**	3.00	3.57
Horse Beans	11.57	2.84	-	-	-	-	**	**	**	**
Field Peas	3.00	.74	-	-	-	-	-	-	**	**
Haricot Beans	10.76	2.64	**	**	**	**	**	**	**	**
Chick Peas	**	**	-	-	-	-	-	-	**	**
Lentils	**	**	-	-	-	-	-	-	**	**
Vetch	**	**	-	-	-	-	-	-	**	**
OILSEEDS	16.22	3.98	-	-	**	**	-	-	**	**
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	.87	.21	-	-	-	-	-	-	**	**
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	**	**	-	-	**	**	-	-	**	**
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	**	**	-	-	**	**	-	-	**	**
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	13.12	3.22	**	**	.96	5.33	**	**	1.99	2.37
Fenugreek	.62	.15	-	-	-	-	-	-	**	**
Spices	**	**	-	-	**	**	-	-	-	-
Potatoes	2.02	.50	-	-	**	**	-	-	.99	1.18
Other Temporary	9.77	2.40	**	**	.91	5.05	**	**	.93	1.11
ALL TEMPORARY	353.58	86.70	3.58	83.64	**	**	**	**	70.75	84.21
Chat	45.66	11.20	-	-	2.79	15.48	1.09	9.37	11.27	13.41
Coffee	5.03	1.23	**	**	**	**	**	**	**	**
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	-	-	-	-	-	-	**	**
Fruits	1.21	.30	**	**	**	**	-	-	**	**
Other Permanent	**	**	-	-	**	**	-	-	**	**
TOTAL PERMANENT	54.23	13.30	**	**	5.78	32.08	1.11	9.54	13.27	15.79
ALL CROPS	407.81	100.00	4.28	100.00	**	**	**	**	84.02	100.00

TABLE 1.7

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	49.34	87.22	5.44	99.63	**	**	**	**	**	**
Teff	**	**	-	-	-	-	-	-	-	-
Barely	4.22	7.46	**	**	-	-	-	-	-	-
Wheat	3.49	6.17	**	**	-	-	-	-	**	**
Maize	16.36	28.92	2.67	48.90	**	**	**	**	**	**
Sorghum	24.95	44.10	**	**	**	**	**	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-
Oats	.13	.23	-	-	-	-	-	-	-	-
PULSES	1.13	2.00	**	**	-	-	-	-	**	**
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	.67	1.18	**	**	-	-	-	-	**	**
Chick Peas	.28	.49	**	**	-	-	-	-	-	-
Lentils	**	**	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	.14	.25	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	**	**	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	**	**	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	-	-	**	**
Fenugreek	**	**	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	-	-	-	-	-	-	**	**
Other Temporary	**	**	-	-	-	-	-	-	-	-
ALL TEMPORARY	51.31	90.70	5.46	100.00	**	**	**	**	**	**
Chat	5.25	9.28	-	-	**	**	**	**	**	**
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	5.26	9.30	-	-	**	**	**	**	**	**
ALL CROPS	56.57	100.00	5.46	100.00	**	**	**	**	**	**

TABLE 1.8

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	87.28	76.46	**	**	-	-	**	**	**	**
Teff	17.89	15.67	-	-	-	-	-	-	**	**
Barely	**	**	-	-	-	-	-	-	**	**
Wheat	**	**	-	-	-	-	-	-	**	**
Maize	21.73	19.04	**	**	-	-	**	**	2.18	27.63
Sorghum	38.34	33.59	-	-	-	-	**	**	**	**
Millet	7.13	6.25	-	-	-	-	-	-	-	-
Oats	**	**	-	-	-	-	-	-	-	-
PULSES	3.59	3.14	-	-	-	-	-	-	**	**
Horse Beans	**	**	-	-	-	-	-	-	**	**
Field Peas	**	**	-	-	-	-	-	-	**	**
Haricot Beans	1.36	1.19	-	-	-	-	-	-	-	-
Chick Peas	.49	.43	-	-	-	-	-	-	-	-
Lentils	**	**	-	-	-	-	-	-	**	**
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	19.58	17.15	-	-	-	-	-	-	.07	.89
Neug	13.65	11.96	-	-	-	-	-	-	**	**
Lin Seed	.12	.11	-	-	-	-	-	-	-	-
Rape seed	**	**	-	-	-	-	-	-	**	**
Ground Nuts	1.40	1.23	-	-	-	-	-	-	**	**
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	4.37	3.83	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	1.59	1.39	-	-	-	-	-	-	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	.92	.81	-	-	-	-	-	-	.04	.51
Potatoes	**	**	-	-	-	-	-	-	**	**
Other Temporary	.50	.44	-	-	-	-	-	-	**	**
ALL TEMPORARY	112.04	98.15	**	**	-	-	**	**	**	**
Chat	**	**	-	-	**	**	-	-	-	-
Coffee	**	**	**	**	**	**	-	-	**	**
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	-	-	-	-	-	-	-	-
Tobacco	**	**	-	-	-	-	-	-	-	-
Fruits	.72	.63	-	-	**	**	-	-	**	**
Other Permanent	.11	.10	-	-	**	**	-	-	**	**
TOTAL PERMANENT	2.11	1.85	**	**	**	**	-	-	.09	1.14
ALL CROPS	114.15	100.00	**	**	**	**	**	**	**	**

TABLE 1.9

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

(S.N.N.P.R)

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	576.42	56.79	12.10	75.77	**	**	101.13	94.69	250.70	57.97
Teff	183.58	18.09	2.10	13.15	-	-	51.20	47.94	94.55	21.86
Barely	48.55	4.78	-	-	-	-	2.21	2.07	19.25	4.45
Wheat	64.34	6.34	**	**	**	**	42.43	39.73	53.57	12.39
Maize	163.24	16.08	7.56	47.34	**	**	1.36	1.27	63.37	14.65
Sorghum	111.76	11.01	**	**	**	**	**	**	17.49	4.04
Millet	4.88	.48	-	-	-	-	**	**	**	**
Oats	**	**	-	-	-	-	-	-	**	**
PULSES	88.63	8.73	**	**	-	-	.36	.34	17.08	3.95
Horse Beans	39.83	3.92	**	**	-	-	.25	.23	7.34	1.70
Field Peas	25.34	2.50	-	-	-	-	**	**	3.30	.76
Haricot Beans	21.01	2.07	-	-	-	-	-	-	5.99	1.39
Chick Peas	1.76	.17	-	-	-	-	-	-	**	**
Lentils	**	**	-	-	-	-	-	-	**	**
Vetch	**	**	-	-	-	-	-	-	-	-
OILSEEDS	1.01	.10	**	**	-	-	-	-	.23	.05
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	.32	.03	-	-	-	-	-	-	**	**
Rape seed	**	**	**	**	-	-	-	-	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	62.41	6.15	**	**	**	**	.37	.35	32.29	7.47
Fenugreek	.29	.03	-	-	-	-	-	-	**	**
Spices	22.51	2.22	-	-	**	**	**	**	16.09	3.72
Potatoes	4.69	.46	-	-	**	**	**	**	2.88	.67
Other Temporary	34.92	3.44	**	**	**	**	**	**	13.13	3.04
ALL TEMPORARY	728.47	71.76	12.38	77.52	**	**	101.86	95.37	300.30	69.44
Chat	13.22	1.30	-	-	**	**	.63	.59	6.43	1.49
Coffee	74.80	7.37	3.51	21.98	**	**	**	**	21.87	5.06
Enset	174.30	17.17	-	-	**	**	.33	.31	100.29	23.19
Cotton	**	**	-	-	**	**	-	-	-	-
Tobacco	.38	.04	-	-	-	-	-	-	.16	.04
Fruits	8.87	.87	**	**	**	**	-	-	1.50	.35
Other Permanent	5.86	.58	**	**	**	**	**	**	1.90	.44
TOTAL PERMANENT	286.62	28.24	3.59	22.48	**	**	**	**	132.15	30.56
ALL CROPS	1,015.09	100.00	15.97	100.00	**	**	106.80	100.00	432.45	100.00

TABLE 1.9.1

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

YEM, KEFICHO, MAJI, SHEKICHO AND BENCHI Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	72.80	57.72	1.35	64.29	-	-	**	**	2.05	45.66
Teff	20.21	16.02	**	**	-	-	**	**	1.04	23.16
Barely	7.23	5.73	-	-	-	-	**	**	-	-
Wheat	3.39	2.69	.66	31.43	-	-	**	**	.56	12.47
Maize	24.43	19.37	**	**	-	-	**	**	**	**
Sorghum	16.97	13.46	**	**	-	-	**	**	**	**
Millet	.57	.45	-	-	-	-	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	15.78	12.51	-	-	-	-	**	**	**	**
Horse Beans	8.18	6.49	-	-	-	-	**	**	**	**
Field Peas	4.64	3.68	-	-	-	-	-	-	-	-
Haricot Beans	**	**	-	-	-	-	-	-	**	**
Chick Peas	**	**	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	5.85	4.64	-	-	-	-	-	-	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	-	-	-	-	-	-	-	-
Potatoes	**	**	-	-	-	-	-	-	-	-
Other Temporary	5.47	4.34	-	-	-	-	-	-	**	**
ALL TEMPORARY	94.47	74.90	1.35	64.29	-	-	**	**	2.49	55.46
Chat	.53	.42	-	-	-	-	-	-	-	-
Coffee	11.42	9.05	**	**	-	-	-	-	**	**
Enset	16.84	13.35	-	-	**	**	**	**	1.81	40.31
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	-	-	-	-	-	-	-	-
Fruits	2.16	1.71	-	-	-	-	-	-	**	**
Other Permanent	.69	.55	-	-	-	-	-	-	-	-
TOTAL PERMANENT	31.65	25.10	**	**	**	**	**	**	2.00	44.54
ALL CROPS	126.12	100.00	2.10	100.00	**	**	**	**	4.49	100.00

TABLE 1.9.2

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

NORTH AND SOUTH OMO, GARDULA AND KONSO Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	204.76	64.18	3.13	92.06	**	**	**	**	44.56	60.30
Teff	73.23	22.95	**	**	-	-	**	**	**	**
Barley	12.76	4.00	-	-	-	-	-	-	**	**
Wheat	**	**	-	-	-	-	-	-	**	**
Maize	42.73	13.39	2.82	82.94	**	**	-	-	10.26	13.88
Sorghum	74.05	23.21	-	-	-	-	**	**	**	**
Millet	**	**	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	31.50	9.87	-	-	-	-	-	-	3.49	4.72
Horse Beans	10.63	3.33	-	-	-	-	-	-	**	**
Field Peas	9.13	2.86	-	-	-	-	-	-	**	**
Haricot Beans	10.82	3.39	-	-	-	-	-	-	2.98	4.03
Chick Peas	**	**	-	-	-	-	-	-	**	**
Lentils	**	**	-	-	-	-	-	-	**	**
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	.30	.09	-	-	-	-	-	-	**	**
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	-	-	-	-	**	**
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	23.44	7.35	**	**	**	**	**	**	6.61	8.94
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	2.93	.92	-	-	-	-	-	-	**	**
Potatoes	1.72	.54	-	-	**	**	-	-	.43	.58
Other Temporary	18.79	5.89	**	**	**	**	**	**	5.99	8.11
ALL TEMPORARY	260.00	81.50	3.24	95.29	**	**	**	**	54.70	74.02
Chat	**	**	-	-	-	-	-	-	**	**
Coffee	15.92	4.99	**	**	**	**	**	**	4.78	6.47
Enset	28.07	8.80	-	-	**	**	**	**	13.42	18.16
Cotton	**	**	-	-	**	**	-	-	-	-
Tobacco	**	**	-	-	-	-	-	-	**	**
Fruits	**	**	**	**	**	**	-	-	**	**
Other Permanent	.97	.30	**	**	**	**	-	-	.34	.46
TOTAL PERMANENT	59.02	18.50	**	**	**	**	**	**	19.20	25.98
ALL CROPS	319.02	100.00	3.40	100.00	**	**	**	**	73.90	100.00

TABLE 1.9.3

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

HADIYA, KEMBATA AND GURAGE Zone

('000 HA)

TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	249.37	68.25	7.00	97.36	**	**	93.37	98.81	190.76	66.97
Teff	82.02	22.45	**	**	-	-	47.62	50.40	73.73	25.89
Barely	14.82	4.06	-	-	-	-	1.96	2.07	13.65	4.79
Wheat	56.08	15.35	**	**	**	**	41.52	43.94	51.75	18.17
Maize	73.78	20.19	3.87	53.82	**	**	.94	.99	44.57	15.65
Sorghum	19.38	5.30	-	-	**	**	**	**	4.59	1.61
Millet	3.27	.89	-	-	-	-	**	**	**	**
Oats	**	**	-	-	-	-	-	-	**	**
PULSES	15.50	4.24	**	**	-	-	.28	.30	11.25	3.95
Horse Beans	9.33	2.55	**	**	-	-	.17	.18	6.88	2.42
Field Peas	4.36	1.19	-	-	-	-	**	**	**	**
Haricot Beans	1.46	.40	-	-	-	-	-	-	1.03	.36
Chick Peas	**	**	-	-	**	**	-	-	**	**
Lentils	**	**	-	-	-	-	-	-	**	**
Vetch	**	**	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	-	-	-	-	.19	.07
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	.08	.02	-	-	-	-	-	-	**	**
Rape seed	**	**	**	**	-	-	-	-	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	27.87	7.63	**	**	**	**	**	**	22.55	7.92
Fenugreek	.29	.08	-	-	-	-	-	-	**	**
Spices	19.15	5.24	-	-	**	**	**	**	15.88	5.58
Potatoes	2.92	.80	-	-	-	-	**	**	2.45	.86
Other Temporary	5.51	1.51	**	**	**	**	**	**	4.03	1.41
ALL TEMPORARY	293.29	80.27	7.04	97.91	**	**	93.86	99.33	224.75	78.91
Chat	6.85	1.87	-	-	**	**	**	**	4.49	1.58
Coffee	7.76	2.12	**	**	**	**	**	**	5.32	1.87
Enset	54.97	15.05	-	-	-	-	**	**	49.11	17.24
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	-	-	-	-	-	-	**	**
Fruits	.41	.11	-	-	-	-	-	-	**	**
Other Permanent	1.85	.51	**	**	-	-	**	**	.87	.31
TOTAL PERMANENT	72.08	19.73	**	**	**	**	.63	.67	60.08	21.09
ALL CROPS	365.37	100.00	7.19	100.00	.33	100.00	94.49	100.00	284.83	100.00

TABLE 1.9.4

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

SIDAMA, GEDIO, BURJI AND AMARO Zone

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	49.50	24.20	**	**	-	-	-	-	13.36	19.28
Teff	8.12	3.97	-	-	-	-	-	-	2.20	3.18
Barely	13.74	6.72	-	-	-	-	-	-	**	**
Wheat	3.93	1.92	-	-	-	-	-	-	**	**
Maize	22.30	10.90	**	**	-	-	-	-	8.27	11.94
Sorghum	1.37	.67	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	**	**	-	-	-	-	-	-	-	-
PULSES	25.84	12.63	-	-	-	-	-	-	**	**
Horse Beans	11.69	5.71	-	-	-	-	-	-	.25	.36
Field Peas	7.21	3.52	-	-	-	-	-	-	**	**
Haricot Beans	5.79	2.83	-	-	-	-	-	-	**	**
Chick Peas	**	**	-	-	-	-	-	-	**	**
Lentils	**	**	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	5.24	2.56	**	**	**	**	**	**	2.77	4.00
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	-	-	-	-	-	-	**	**
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Temporary	5.15	2.52	**	**	**	**	**	**	2.75	3.97
ALL TEMPORARY	80.69	39.45	**	**	**	**	**	**	18.40	26.56
Chat	5.77	2.82	-	-	**	**	**	**	1.92	2.77
Coffee	39.70	19.41	2.53	77.37	**	**	**	**	11.60	16.74
Enset	74.41	36.38	-	-	**	**	-	-	35.95	51.88
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	.05	.02	-	-	-	-	-	-	-	-
Fruits	1.59	.78	-	-	**	**	-	-	**	**
Other Permanent	2.35	1.15	-	-	**	**	-	-	.70	1.01
TOTAL PERMANENT	123.87	60.55	2.53	77.37	**	**	**	**	50.89	73.44
ALL CROPS	204.56	100.00	3.27	100.00	**	**	**	**	69.29	100.00

TABLE 11.10

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

GAMBELA

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	5.03	76.68	**	**	-	-	**	**	**	**
Teff	-	-	-	-	-	-	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	2.91	44.36	**	**	-	-	**	**	**	**
Sorghum	2.10	32.01	**	**	-	-	-	-	**	**
Millet	**	**	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	.01	.15	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	**	**	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	.46	7.01	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Temporary	.44	6.71	-	-	-	-	-	-	-	-
ALL TEMPORARY	5.69	86.74	.07	26.92	-	-	**	**	**	**
Chat	**	**	-	-	-	-	-	-	-	-
Coffee	.58	8.84	.19	73.08	-	-	-	-	-	-
Enset	**	**	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	.09	1.37	-	-	-	-	-	-	-	-
Other Permanent	.05	.76	-	-	-	-	-	-	-	-
TOTAL PERMANENT	.87	13.26	.19	73.08	-	-	-	-	-	-
ALL CROPS	6.56	100.00	.26	100.00	-	-	**	**	**	**

TABLE 1.11

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	**	**	.03	75.00	.23	52.27	.59	80.82	2.44	67.59
Teff	-	-	-	-	-	-	-	-	-	-
Barely	.04	.51	-	-	-	-	**	**	.04	1.11
Wheat	.10	1.28	-	-	-	-	-	-	.08	2.22
Maize	1.17	14.92	.03	75.00	.06	13.64	.17	23.29	.68	18.84
Sorghum	3.58	45.66	-	-	.17	38.64	.41	56.16	1.64	45.43
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	-	-	-	-	-	-	**	**
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	-	-	-	-	-	-	**	**
Chick Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	1.08	13.78	**	**	**	**	**	**	.14	3.88
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	1.08	13.78	**	**	**	**	**	**	.14	3.88
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	.09	1.15	-	-	.01	2.27	-	-	.04	1.11
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	-	-	-	-	-	-	**	**
Other Temporary	.07	.89	-	-	.01	2.27	-	-	.02	.55
ALL TEMPORARY	6.09	77.68	.04	100.00	.26	59.09	.64	87.67	2.64	73.13
Chat	1.65	21.05	-	-	.16	36.36	.09	12.33	.96	26.59
Coffee	.01	.13	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	.09	1.15	-	-	**	**	-	-	.01	.28
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	1.75	22.32	-	-	.18	40.91	.09	12.33	.97	26.87
ALL CROPS	7.84	100.00	.04	100.00	.44	100.00	.73	100.00	3.61	100.00

TABLE 1.12

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	7.50	76.77	.18	85.71	-	-	.33	100.00	7.24	89.94
Teff	4.49	45.96	.10	47.62	-	-	.30	90.91	4.47	55.53
Barely	.22	2.25	-	-	-	-	-	-	**	**
Wheat	2.71	27.74	.08	38.10	-	-	**	**	2.65	32.92
Maize	.01	.10	-	-	-	-	-	-	-	-
Sorghum	.07	.72	-	-	-	-	-	-	.01	.12
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	2.08	21.29	**	**	-	-	-	-	.72	8.94
Horse Beans	.16	1.64	-	-	-	-	-	-	.05	.62
Field Peas	.03	.31	-	-	-	-	-	-	**	**
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	.65	6.65	-	-	-	-	-	-	.22	2.73
Lentils	.46	4.71	**	**	-	-	-	-	.26	3.23
Vetch	.78	7.98	**	**	-	-	-	-	.18	2.24
OILSEEDS	.04	.41	-	-	-	-	-	-	**	**
Neug	**	**	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	-	-	-	-	**	**
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	.15	1.54	**	**	-	-	-	-	.08	.99
Fenugreek	.09	.92	-	-	-	-	-	-	.03	.37
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Temporary	.06	.61	**	**	-	-	-	-	.05	.62
ALL TEMPORARY	9.77	100.00	.21	100.00	**	**	.33	100.00	8.05	100.00
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	9.77	100.00	.21	100.00	**	**	.33	100.00	8.05	100.00

TABLE 1.13

ESTIMATE OF IMPROVED SEED, IRRIGATION, PESTICIDE AND FERTILIZER APPLIED AREA AND THEIR
PERCENTAGE DISTRIBUTION BY CROP FOR MEHER SEASON OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

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TYPE OF CROP	TOTAL CROP		IMPROVED SEED APPLIED		IRRIGATED		PESTICIDE APPLIED		FERTILIZER APPLIED	
	AREA	%	AREA	%	AREA	%	AREA	%	AREA	%
CEREALS	5.59	88.73	.09	100.00	.53	66.25	.37	97.37	1.10	85.27
Teff	-	-	-	-	-	-	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	.13	2.06	**	**	**	**	**	**	**	**
Sorghum	5.46	86.67	.08	88.89	.48	60.00	.33	86.84	1.04	80.62
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	.09	1.43	**	**	**	**	-	-	.04	3.10
Horse Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	.09	1.43	-	-	**	**	-	-	.04	3.10
Chick Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	.05	.79	-	-	.02	2.50	-	-	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Temporary	.05	.79	-	-	.02	2.50	-	-	**	**
ALL TEMPORARY	5.73	90.95	.09	100.00	.57	71.25	.37	97.37	1.16	89.92
Chat	.41	6.51	-	-	.14	17.50	-	-	.09	6.98
Coffee	**	**	-	-	**	**	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	.13	2.06	-	-	**	**	**	**	.04	3.10
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	.57	9.05	-	-	.23	28.75	**	**	.13	10.08
ALL CROPS	6.30	100.00	.09	100.00	.80	100.00	.38	100.00	1.29	100.00

2. Total Fertilizer Applied Area by Type of Fertilizer and crop.

The types of fertilizers most commonly used by the private peasants during the survey year were *Natural*, *DAP* and *UREA*. These fertilizers were used separately or in combination, i.e. only *Natural*, only *DAP*, only *UREA*, *DAP* mixed with *UREA* and *Natural* mixed *UREA* or *DAP*.

As shown in the Summary *Table b* below, among the fertilizers used, *DAP* was applied in larger area. *Natural* fertilizer and *UREA* were also used on considerable amount of crop area. Moreover, area fertilized using a mixture of natural and commercial fertilizers was very small at national level. For details refer to the tables presented.

Table b : Summary of Total Fertilizer Applied Area By Type of Fertilizer

TYPE OF FERTILIZER	APPLIED AREA ('000 HA)
<i>Natural</i>	527.60
<i>DAP</i>	1,375.89
<i>UREA</i>	279.61
<i>DAP + UREA</i>	626.06
<i>Natural + Commercial</i>	35.67
Total	2,844.86

2.1 Natural Fertilizer Applied Area.

Out of the total fertilized area, i.e. 2,844.86 thousand hectares, the *Natural* fertilizer was applied on about 527.60 thousand hectares or 18.54%. Out of this area, temporary and permanent crops account for about 369.87 and 157.73 thousand hectares respectively. See Table 2.1.

2.2 DAP Applied Area.

The total *DAP* applied area was 1,375.89 thousand hectares or 48.36% of the total fertilized area. Temporary and permanent crops accounted for 1,372.43 and 3.46 thousand hectares respectively.

Teff with 657.70 thousand hectares has the largest *DAP* applied area among temporary crops. From permanent crops, coffee with 1.41 thousand hectares has the largest *DAP* applied area. See Table 2.1.

2.3 Urea Applied Area.

The total *UREA* applied area was about 279.61 thousand hectares or 9.83% of the total fertilizer applied area. Temporary and permanent crops account for 273.64 thousand hectares or 9.62% and 5.97 thousand hectares or 0.21% respectively.

2.4 DAP and UREA Applied Area.

Out of the total fertilized area the mixture of *DAP* and *UREA* was applied on 626.06 thousand hectares or 22.01%. Temporary and permanent crops account for about 622.28 thousand hectares or 21.87% and 3.78 thousand hectares or 0.14% respectively. See Table 2.1.

Here also, teff with 363.22 thousand hectares from temporary crops and chat with 2.79 thousand hectares from permanent crops have the largest *DAP* and *UREA* applied area.

2.5 Natural and Commercial Fertilizer Applied Area.

From the total fertilized area the *Natural* fertilizer mixed with Commercial fertilizer was applied only on 35.67 thousand hectares or 1.25%. Temporary and permanent crops account for 32.45 thousand hectares and 3.22 thousand hectares respectively.

TABLE 2.1

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NATIONAL

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	2,501.98	87.95	320.99	60.84	1,278.70	92.94	260.22	93.07	611.97	97.75	30.08	84.33
Teff	1,175.65	41.33	21.05	3.99	657.70	47.80	125.28	44.81	363.22	58.02	8.39	23.52
Barely	207.60	7.30	25.65	4.86	143.28	10.41	20.14	7.20	16.93	2.70	1.59	4.46
Wheat	443.69	15.60	11.48	2.18	218.96	15.91	42.44	15.18	165.50	26.44	5.30	14.86
Maize	445.52	15.66	192.52	36.49	147.24	10.70	45.50	16.27	48.88	7.81	11.38	31.90
Sorghum	107.98	3.80	63.87	12.11	13.41	.97	12.69	4.54	14.60	2.33	3.42	9.59
Millet	102.39	3.60	5.89	1.12	84.74	6.16	10.74	3.84	**	**	-	-
Oats	19.15	.67	.53	.10	**	**	**	**	**	**	-	-
PULSES	78.10	2.75	18.27	3.46	45.14	3.28	4.77	1.71	8.28	1.32	1.63	4.57
Horse Beans	41.45	1.46	10.23	1.94	28.15	2.05	.65	.23	1.75	.28	**	**
Chick Peas	13.72	.48	2.17	.41	8.39	.61	.86	.31	2.16	.35	**	**
Haricot Beans	11.99	.42	5.03	.95	2.40	.17	2.90	1.04	**	**	**	**
Field Peas	4.88	.17	**	**	**	**	**	**	**	**	**	**
Lentils	3.65	.13	**	**	1.93	.14	**	**	1.42	.23	-	-
Vetch	2.41	.08	**	**	**	**	**	**	**	**	**	**
OILSEEDS	33.04	1.16	4.23	.80	26.00	1.89	1.69	.60	.71	.11	**	**
Neug	9.37	.33	**	.27	7.35	.53	**	**	-	-	-	-
Lin Seed	6.03	.21	.50	.09	**	**	**	**	**	**	**	**
Rape seed	**	**	2.19	.42	**	**	**	**	**	**	**	**
Ground Nuts	**	**	**	**	**	**	**	**	**	**	.02	.06
Sun Flower	**	**	**	**	**	**	-	-	**	**	-	-
Sesame	**	**	**	**	**	**	.05	.02	-	-	-	-
Castor Bean	**	**	**	**	-	-	-	-	-	-	-	-
OTHERS	57.56	2.02	26.38	5.00	22.59	1.64	**	**	1.32	.21	.33	.93
Fenugreek	.86	.03	.21	.04	**	**	**	**	**	**	-	-
Spices	21.99	.77	4.92	.93	11.96	.87	**	**	**	**	**	**
Potatoes	13.94	.49	5.57	1.06	6.81	.49	1.28	.46	**	**	**	**
Other Vegetables	20.77	.73	15.68	2.97	3.33	.24	.88	.31	.63	.10	.26	.73
ALL TEMPORARY	2,670.68	93.88	369.87	70.10	1,372.43	99.75	273.64	97.86	622.28	99.40	32.45	90.97
Chat	25.14	.88	15.22	2.88	1.39	.10	3.58	1.28	2.79	.45	**	**
Coffee	27.92	.98	23.96	4.54	1.41	.10	1.62	.58	**	**	**	**
Enset	112.98	3.97	111.25	21.09	.33	.02	**	**	**	**	**	**
Cotton	.30	.01	.29	.05	-	-	-	-	**	**	-	-
Tobacco	.31	.01	.29	.05	**	**	**	**	-	-	-	-
Fruits	2.74	.10	2.37	.45	**	**	**	**	.03	-	**	**
Other Permanent	4.79	.17	4.35	.82	**	**	**	**	.11	.02	-	-
TOTAL PERMANENT	174.18	6.12	157.73	29.90	3.46	.25	5.97	2.14	3.78	.60	**	**
ALL CROPS	2,844.86	100.00	527.60	100.00	1,375.89	100.00	279.61	100.00	626.06	100.00	35.67	100.00

FIG 2. ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER
FOR MAJOR CROPS OF PRIVATE PEASANT HOLDINGS,
NATIONAL, 1996/97 (1989 E.C.)

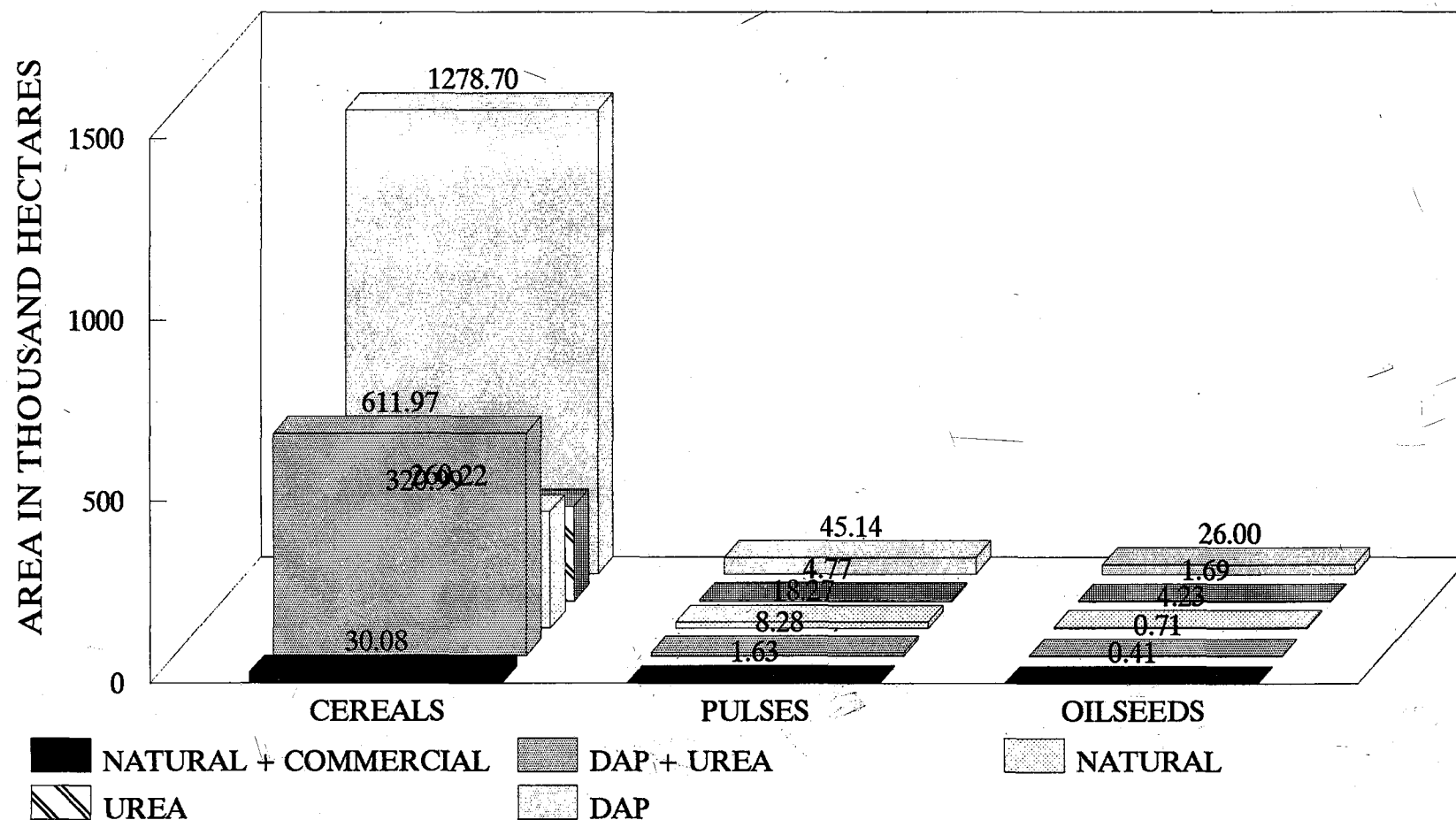


TABLE 2.2

ESTIMATES OF FERTILIZER APPLIED AREA BY REGION AND BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS
1996/97(1989 E.C.)

('000 HA)

REGION	TOTAL		NATURAL		DAP		UREA		DAP + UREA		NAT + COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
TIGRAY	113.56	3.99	63.96	12.12	14.86	1.08	14.52	5.19	16.74	2.67	3.48	9.76
AFAR	2.54	.09	1.85	.35	.35	.03	.34	.12	-	-	-	-
AMHARA	797.26	28.02	136.42	25.86	398.95	29.00	83.97	30.03	170.40	27.22	7.52	21.09
OROMIYA	1,475.41	51.86	145.26	27.53	748.18	54.38	146.14	52.26	416.18	66.47	19.64	55.08
SOMALIE	2.74	.10	2.13	.40	.18	.01	.25	.09	.18	.03	-	-
BENSHANGUL-GUMUZ	7.91	.28	4.16	.79	2.66	.19	.05	.02	.23	.04	.81	2.27
S.N.N.P.R.	432.46	15.20	172.49	32.69	209.69	15.24	32.58	11.65	14.37	2.30	3.32	9.31
GAMBELA	.06	-	-	-	.03	-	.03	.01	.01	-	-	-
HARARI	3.61	.13	.38	.07	.39	.03	1.41	.50	.66	.11	.77	2.16
ADDIS ABABA	8.04	.28	.07	.01	.53	.04	.18	.06	7.21	1.15	.04	.11
DIRE DAWA	1.29	.05	.89	.17	.06	-	.15	.05	.11	.02	.08	.22
TOTAL	2,844.88	100.00	527.61	100.00	1,375.88	100.00	279.62	100.00	626.09	100.00	35.66	100.00

TABLE 2.3

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

TIGRAY

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	111.05	97.77	61.70	96.45	14.72	99.06	14.40	99.17	16.75	100.00	3.49	100.00
Teff	29.73	26.18	4.76	7.44	7.72	51.95	6.21	42.77	9.66	57.67	**	**
Barely	14.87	13.09	7.29	11.40	2.90	19.52	**	**	**	**	**	**
Wheat	15.69	13.81	**	**	1.78	11.98	**	**	2.70	16.12	**	**
Maize	20.08	17.68	16.32	25.51	.55	3.70	**	**	**	**	**	**
Sorghum	25.26	22.24	23.92	37.39	**	**	**	**	**	**	-	-
Millet	5.42	4.77	3.14	4.91	**	**	**	**	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	2.29	2.02	**	**	**	**	**	**	-	-	-	-
Horse Beans	**	**	**	**	-	-	-	-	-	-	-	-
Chick Peas	**	**	-	-	-	-	**	**	-	-	-	-
Haricot Beans	**	**	**	**	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	-	-	-	-	-	-
Lentils	**	**	-	-	-	-	**	**	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	113.46	99.89	63.86	99.83	14.85	99.93	14.52	100.00	16.75	100.00	3.49	100.00
Chat	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	**	**	-	-	-	-	-	-
TOTAL PERMANENT	**	**	.11	.17	**	**	-	-	-	-	-	-
ALL CROPS	113.58	100.00	63.97	100.00	14.86	100.00	14.52	100.00	16.75	100.00	3.49	100.00

TABLE 2.4

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

Afar

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	**	**	**	**	**	**	**	**	-	-	-	-
Teff	**	**	**	**	**	**	**	**	-	-	-	-
Barely	**	**	**	**	-	-	-	-	-	-	-	-
Wheat	**	**	**	**	-	-	-	-	-	-	-	-
Maize	**	**	**	**	-	-	-	-	-	-	-	-
Sorghum	**	**	**	**	**	**	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	-	-	**	**	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	**	**	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	**	**	-	-	-	-
Chat	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	**	**	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	**	**	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	**	**	**	**	-	-	-	-

TABLE 2.5

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

AMHARA

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	745.15	93.47	114.76	84.12	373.36	93.59	82.62	98.40	167.55	98.32	6.87	91.36
Teff	408.07	51.18	7.20	5.28	225.05	56.41	59.79	71.21	112.71	66.14	3.32	44.15
Barely	29.19	3.66	11.55	8.47	13.81	3.46	1.60	1.91	**	**	-	-
Wheat	68.64	8.61	1.05	.77	19.82	4.97	**	**	39.65	23.27	**	**
Maize	143.80	18.04	83.08	60.90	44.36	11.12	**	**	8.20	4.81	2.67	35.51
Sorghum	15.32	1.92	9.58	7.02	**	**	**	**	4.17	2.45	**	**
Millet	79.78	10.01	**	**	68.94	17.28	**	**	**	**	-	-
Oats	**	**	**	**	-	-	-	-	-	-	-	-
PULSES	17.00	2.13	5.41	3.97	8.91	2.23	**	**	**	**	**	**
Horse Beans	8.39	1.05	3.34	2.45	4.70	1.18	**	**	-	-	**	**
Chick Peas	4.64	.58	1.27	.93	**	**	**	**	**	**	**	**
Haricot Beans	**	**	**	**	**	**	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	-	-	**	**	-	-
Lentils	**	**	-	-	**	**	-	-	**	**	-	-
Vetch	**	**	-	-	-	-	-	-	**	**	-	-
OILSEEDS	17.80	2.23	2.78	2.04	13.98	3.50	**	**	**	**	**	**
Neug	7.20	.90	**	**	5.71	1.43	**	**	-	-	-	-
Lin Seed	**	**	**	**	**	**	-	-	-	-	-	-
Rape seed	**	**	1.56	1.14	**	**	**	**	**	**	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	**	**	-	-	**	**	-	-
Sesame	**	**	**	**	**	**	-	-	-	-	-	-
Castor Bean	**	**	**	**	-	-	-	-	-	-	-	-
OTHERS	10.49	1.32	6.67	4.89	2.68	.67	**	**	**	**	**	**
Fenugreek	.14	.02	**	**	-	-	**	**	**	**	-	-
Spices	4.24	.53	2.77	2.03	**	**	**	**	**	**	**	**
Potatoes	5.16	.65	**	**	**	**	-	-	-	-	-	-
Other Vegetables	.95	.12	.35	.26	**	**	**	**	**	**	**	**
ALL TEMPORARY	790.44	99.15	129.62	95.02	398.93	100.00	83.96	100.00	170.40	99.99	7.52	100.00
Chat	**	**	**	**	-	-	-	-	-	-	-	-
Coffee	2.11	.26	2.11	1.55	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	.27	.03	.26	.19	-	-	-	-	**	**	-	-
Tobacco	-	-	**	**	-	-	-	-	-	-	-	-
Fruits	.23	.03	.23	.17	-	-	-	-	-	-	-	-
Other Permanent	1.62	.20	1.62	1.19	**	**	-	-	-	-	-	-
TOTAL PERMANENT	6.81	.85	6.80	4.98	**	**	-	-	**	**	-	-
ALL CROPS	797.25	100.00	136.42	100.00	398.93	100.00	83.96	100.00	170.41	100.00	7.52	100.00

TABLE 2.5.1

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NORTH AND SOUTH GONDAR Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	124.51	95.32	25.13	85.71	50.94	97.68	19.30	97.08	28.42	99.58	**	**
Teff	70.97	54.33	**	**	32.62	62.55	14.53	73.09	22.92	80.31	**	**
Barely	**	**	**	**	**	**	**	**	-	-	-	-
Wheat	5.44	4.16	-	-	**	**	**	**	**	**	-	-
Maize	24.23	18.55	23.26	79.33	**	**	-	-	**	**	-	-
Sorghum	**	**	**	**	**	**	-	-	**	**	-	-
Millet	20.23	15.49	**	**	**	**	**	**	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	**	**	**	**	-	-	-	-
Horse Beans	**	**	**	**	**	**	**	**	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	-	-	**	**	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	.79	.60	**	**	**	**	-	-	-	-	-	-
Neug	**	**	**	**	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	**	**	-	-	-	-	-	-
Rape seed	**	**	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	**	**	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	**	**	**	**	**	**	-	-
Fenugreek	**	**	-	-	-	-	**	**	-	-	-	-
Spices	1.23	.94	.47	1.60	**	**	**	**	**	**	-	-
Potatoes	**	**	**	**	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	**	**	**	**	-	-	-	-
ALL TEMPORARY	129.57	99.20	28.28	96.45	52.15	100.00	**	**	28.53	99.96	**	**
Chat	**	**	**	**	-	-	-	-	-	-	-	-
Coffee	.26	.20	**	**	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	**	**	-	-	-	-	**	**	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-	-	-
Other Permanent	.68	.52	.68	2.32	**	**	-	-	-	-	-	-
TOTAL PERMANENT	1.05	.80	1.04	3.55	**	**	-	-	**	**	-	-
ALL CROPS	130.62	100.00	29.32	100.00	52.15	100.00	**	**	28.54	100.00	**	**

TABLE 2.5.2

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

EAST, WEST GOJAM AND AGEWAWI Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	500.40	93.69	66.49	88.30	303.47	92.91	**	**	74.15	99.61	4.90	88.29
Teff	275.28	51.54	4.40	5.84	178.86	54.76	**	**	56.32	75.66	**	**
Barely	17.76	3.33	5.31	7.05	10.98	3.36	**	**	-	-	-	-
Wheat	32.45	6.08	**	**	15.67	4.80	**	**	10.13	13.61	*	**
Maize	114.13	21.37	54.57	72.47	44.16	13.52	**	**	7.26	9.75	2.67	48.11
Sorghum	**	**	**	**	**	**	-	-	-	-	-	-
Millet	59.16	11.08	**	**	52.90	16.20	**	**	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	9.96	1.86	2.56	3.40	6.90	2.11	**	**	-	-	**	**
Horse Beans	6.03	1.13	1.22	1.62	4.53	1.39	-	-	-	-	**	**
Chick Peas	3.22	.60	**	**	**	**	**	**	-	-	**	**
Haricot Beans	**	**	**	**	**	**	-	-	-	-	-	-
Field Peas	**	**	**	**	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	16.77	3.14	**	**	13.76	4.21	**	**	**	**	**	**
Neug	6.91	1.29	**	**	5.71	1.75	**	**	-	-	-	-
Lin Seed	**	**	**	**	**	**	-	-	-	-	-	-
Rape seed	**	**	**	**	**	**	**	**	**	**	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	**	**	-	-	**	**	-	-
Sesame	**	**	-	-	**	**	-	-	-	-	-	-
Castor Bean	**	**	**	**	-	-	-	-	-	-	-	-
OTHERS	5.91	1.11	3.23	4.29	2.50	.77	**	**	-	-	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	2.08	.39	1.60	2.12	**	**	**	**	-	-	**	**
Potatoes	**	**	**	**	**	**	-	-	-	-	-	-
Other Vegetables	.80	.15	.27	.36	**	**	**	**	-	-	**	**
ALL TEMPORARY	533.04	99.80	74.25	98.61	326.63	100.00	**	**	74.44	100.00	5.55	100.00
Chat	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	**	**	**	**	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	**	**	-	-	-	-	-	-	-	-
Tobacco	-	-	**	**	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-	-	-
Other Permanent	.79	.15	.79	1.05	-	-	-	-	-	-	-	-
TOTAL PERMANENT	1.05	.20	1.05	1.39	-	-	-	-	-	-	-	-
ALL CROPS	534.09	100.00	75.30	100.00	326.63	100.00	**	**	74.44	100.00	5.55	100.00

TABLE 2.5.3

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NORTH WOLO AND WAGHAMRA Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	9.94	94.67	3.17	90.57	**	**	**	**	5.09	95.68	**	**
Teff	3.75	35.71	**	**	**	**	**	**	2.07	38.91	**	**
Barely	2.19	20.86	**	**	**	**	-	-	**	**	-	-
Wheat	**	**	**	**	-	-	-	-	**	**	-	-
Maize	**	**	**	**	-	-	-	-	**	**	-	-
Sorghum	**	**	**	**	**	**	-	-	**	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	**	**	**	**	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	-	-	-	-	-	-	-	-
Horse Beans	**	**	**	**	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	-	-	-	-	**	**	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	**	**	**	**	-	-	-	-	**	**	-	-
Potatoes	-	-	**	**	-	-	-	-	-	-	-	-
Other Vegetables	-	-	**	**	-	-	-	-	-	-	-	-
ALL TEMPORARY	10.48	99.81	**	**	**	**	**	**	5.32	100.00	**	**
Chat	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	**	**	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	-	-	-	-	-	-	-	-
ALL CROPS	10.50	100.00	**	**	**	**	**	**	5.32	100.00	**	**

TABLE 2.5.4

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

SOUTH WOLO, OROMIA AND NORTH SHEWA Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	110.27	90.37	19.97	70.59	**	**	11.86	100.00	59.87	96.42	**	**
Teff	58.07	47.59	2.36	8.34	**	**	11.20	94.44	**	**	-	-
Barely	**	**	**	**	**	**	-	-	**	**	-	-
Wheat	**	**	**	**	**	**	**	**	**	**	**	**
Maize	5.32	4.36	5.20	18.38	**	**	**	**	-	-	-	-
Sorghum	9.73	7.97	7.36	26.02	**	**	**	**	**	**	-	-
Millet	**	**	**	**	-	-	-	-	**	**	-	-
Oats	**	**	**	**	-	-	-	-	-	-	-	-
PULSES	**	**	2.68	9.47	**	**	-	-	**	**	-	-
Horse Beans	1.97	1.61	1.95	6.89	**	**	-	-	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	**	**	-	-
Haricot Beans	**	**	**	**	-	-	-	-	-	-	-	-
Field Peas	**	**	-	-	**	**	-	-	**	**	-	-
Lentils	**	**	-	-	**	**	-	-	**	**	-	-
Vetch	**	**	-	-	-	-	-	-	**	**	-	-
OILSEEDS	**	**	**	**	**	**	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-	-	-
Rape seed	**	**	**	**	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	**	**	-	-	-	-	-	-
Sesame	**	**	**	**	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	.96	.79	.86	3.04	-	-	-	-	**	**	-	-
Fenugreek	**	**	**	**	-	-	-	-	**	**	-	-
Spices	.69	.57	.69	2.44	-	-	-	-	-	-	-	-
Potatoes	**	**	**	**	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	-	-	-	-	**	**	-	-
ALL TEMPORARY	117.33	96.16	23.60	83.42	**	**	11.86	100.00	**	**	**	**
Chat	**	**	**	**	-	-	-	-	-	-	-	-
Coffee	1.81	1.48	1.81	6.40	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	-	-	-	-	-	-	-	-
TOTAL PERMANENT	4.69	3.84	4.69	16.58	-	-	-	-	-	-	-	-
ALL CROPS	122.02	100.00	28.29	100.00	**	**	11.86	100.00	62.09	100.00	**	**

TABLE 2.6

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

OROMIYA

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	1,373.25	93.07	109.41	75.31	703.17	93.99	137.50	94.09	406.67	97.72	16.48	83.87
Teff	634.27	42.99	7.21	4.96	340.11	45.46	51.46	35.21	233.14	56.02	**	**
Barely	143.87	9.75	2.39	1.65	115.48	15.44	13.15	9.00	12.46	2.99	**	**
Wheat	301.99	20.47	2.82	1.94	148.71	19.88	**	**	118.41	28.45	3.11	15.83
Maize	214.00	14.50	81.66	56.21	64.61	8.64	28.70	19.64	31.34	7.53	7.69	39.13
Sorghum	45.60	3.09	14.41	9.92	8.08	1.08	10.73	7.34	9.42	2.26	**	**
Millet	14.75	1.00	**	**	12.84	1.72	**	**	**	**	-	-
Oats	18.77	1.27	**	**	**	**	**	**	**	**	-	-
PULSES	40.33	2.73	5.88	4.05	26.04	3.48	2.04	1.40	5.64	1.36	**	**
Horse Beans	23.64	1.60	3.30	2.27	**	**	**	**	1.71	.41	**	**
Chick Peas	5.49	.37	.66	.45	2.73	.36	**	**	**	**	-	-
Haricot Beans	5.11	.35	1.83	1.26	**	**	**	**	**	**	**	**
Field Peas	**	**	-	-	**	**	**	**	**	**	**	**
Lentils	2.13	.14	**	**	1.62	.22	-	-	**	**	-	-
Vetch	1.58	.11	**	**	**	**	**	.05	**	**	**	**
OILSEEDS	**	**	1.12	.77	**	**	**	**	**	**	**	**
Neug	2.16	.15	**	**	**	**	**	**	-	-	-	-
Lin Seed	3.73	.25	**	**	**	**	**	**	**	**	**	**
Rape seed	**	**	.51	.35	**	**	-	-	**	**	-	-
Ground Nuts	**	**	**	**	**	**	**	**	**	**	-	-
Sun Flower	**	**	**	**	**	**	-	-	-	-	-	-
Sesame	**	**	**	**	-	-	**	**	-	-	-	-
Castor Bean	-	-	**	**	-	-	-	-	-	-	-	-
OTHERS	14.44	.98	5.92	4.08	**	**	1.86	1.27	.79	.19	**	**
Fenugreek	**	**	.11	.08	**	**	-	-	-	-	-	-
Spices	1.61	.11	1.29	.89	**	**	**	**	-	-	-	-
Potatoes	**	**	1.22	.84	**	**	1.13	.77	**	**	-	-
Other Vegetables	6.59	.45	3.30	2.27	1.90	.25	.69	.47	**	**	**	**
ALL TEMPORARY	1,442.69	97.78	122.33	84.21	746.77	99.81	142.47	97.49	413.52	99.37	17.56	89.36
Chat	13.92	.94	5.43	3.74	1.07	.14	2.90	1.98	2.59	.62	**	**
Coffee	3.88	.26	3.28	2.26	**	**	**	**	**	**	**	**
Enset	12.69	.86	12.34	8.49	**	**	**	**	-	-	-	-
Cotton	**	**	**	**	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	-	-	-	-	-	-	-	-
Fruits	.93	.06	.69	.47	**	**	**	**	**	**	.16	.81
Other Permanent	1.14	.08	1.02	.70	**	**	-	-	**	**	-	-
TOTAL PERMANENT	32.74	2.22	22.94	15.79	1.39	.19	3.67	2.51	2.64	.63	**	**
ALL CROPS	1,475.43	100.00	145.27	100.00	748.16	100.00	146.14	100.00	416.16	100.00	19.65	100.00

TABLE 2.6.1

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

EAST AND WEST WELEGA Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	207.96	93.66	45.60	85.38	118.86	95.11	15.19	98.96	26.84	100.00	1.48	100.00
Teff	117.82	53.06	2.71	5.07	91.90	73.54	10.69	69.64	12.53	46.68	-	-
Barely	2.43	1.09	.49	.92	**	**	**	**	-	-	**	**
Wheat	8.53	3.84	**	**	3.94	3.15	**	**	2.18	8.12	**	**
Maize	59.78	26.92	37.52	70.25	8.21	6.57	**	**	11.69	43.55	**	**
Sorghum	5.10	2.30	3.79	7.10	.69	.55	**	**	**	**	**	**
Millet	14.29	6.44	**	**	12.68	10.15	**	**	**	**	-	-
Oats	**	**	**	**	-	-	-	-	-	-	-	-
PULSES	6.06	2.73	3.46	6.48	**	**	**	**	-	-	-	-
Horse Beans	3.93	1.77	2.32	4.34	**	**	**	**	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	-	-	-	-
Haricot Beans	.71	.32	.70	1.31	**	**	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	**	-	-	-	-	-	-	-	-
Vetch	**	**	**	**	-	-	-	-	-	-	-	-
OILSEEDS	4.28	1.93	**	**	**	**	**	**	-	-	-	-
Neug	**	**	**	**	**	**	**	**	-	-	-	-
Lin Seed	**	**	-	-	**	**	-	-	-	-	-	-
Rape seed	.58	.26	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	2.41	1.09	2.23	4.18	**	**	**	**	-	-	-	-
Fenugreek	**	**	**	**	-	-	-	-	-	-	-	-
Spices	.87	.39	.81	1.52	**	**	**	**	-	-	-	-
Potatoes	1.06	.48	1.00	1.87	**	**	**	**	-	-	-	-
Other Vegetables	.45	.20	.39	.73	**	**	**	**	-	-	-	-
ALL TEMPORARY	220.71	99.40	52.10	97.55	124.97	100.00	15.33	99.87	26.84	100.00	1.48	100.00
Chat	.04	.02	.04	.07	-	-	-	-	-	-	-	-
Coffee	**	**	**	**	-	-	-	-	-	-	-	-
Enset	**	**	**	**	-	-	**	**	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	.04	.07	-	-	-	-	-	-	-	-
Fruits	.32	.14	.32	.60	**	**	**	**	-	-	-	-
Other Permanent	.32	.14	.32	.60	-	-	-	-	-	-	-	-
TOTAL PERMANENT	1.33	.60	1.31	2.45	**	**	**	**	-	-	-	-
ALL CROPS	222.04	100.00	53.41	100.00	124.97	100.00	15.35	100.00	26.84	100.00	1.48	100.00

TABLE 2.6.2

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

ILUBABOR AND JIMA Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	141.88	94.44	14.93	67.43	76.22	99.12	**	**	14.79	99.86	**	**
Teff	86.25	57.41	**	**	51.99	67.61	25.45	71.81	**	**	**	**
Barely	**	**	**	**	**	**	**	**	-	-	-	-
Wheat	**	**	**	**	**	**	**	**	-	-	-	-
Maize	46.81	31.16	11.16	50.41	17.73	23.06	**	**	8.12	54.83	**	**
Sorghum	**	**	**	**	**	**	**	**	-	-	-	-
Millet	**	**	**	**	**	**	**	**	-	-	-	-
Oats	**	**	**	**	-	-	**	**	-	-	-	-
PULSES	**	**	**	**	**	**	**	**	-	-	-	-
Horse Beans	**	**	**	**	**	**	**	**	-	-	-	-
Chick Peas	**	**	**	**	**	**	**	**	-	-	-	-
Haricot Beans	**	**	**	**	**	**	.01	.03	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	**	**	-	-	**	**	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	**	**	**	**	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	**	**	**	**	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	**	**	**	**	-	-	-	-
Fenugreek	-	-	**	**	-	-	-	-	-	-	-	-
Spices	**	**	**	**	-	-	-	-	-	-	-	-
Potatoes	-	-	**	**	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	**	**	**	**	-	-	-	-
ALL TEMPORARY	145.28	96.70	17.29	78.09	76.83	99.91	**	**	14.79	99.86	**	**
Chat	1.28	.85	1.23	5.56	**	**	-	-	-	-	-	-
Coffee	.75	.50	.70	3.16	**	**	**	**	**	**	-	-
Enset	2.53	1.68	2.53	11.43	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	-	-	-	-	-	-	-	-
Fruits	.25	.17	.24	1.08	-	-	-	-	**	**	-	-
Other Permanent	.14	.09	.14	.63	-	-	-	-	-	-	-	-
TOTAL PERMANENT	4.96	3.30	4.85	21.91	**	**	**	**	**	**	-	-
ALL CROPS	150.24	100.00	22.14	100.00	76.90	100.00	**	**	**	**	**	**

TABLE 2.6.3

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NORTH AND WEST SHEWA Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	357.19	95.96	17.40	69.54	174.65	97.73	19.40	98.18	140.57	98.32	5.17	89.45
Teff	221.30	59.45	1.26	5.04	117.01	65.48	13.96	70.65	86.84	60.74	**	**
Barely	37.84	10.17	1.36	5.44	27.30	15.28	**	**	7.30	5.11	**	**
Wheat	83.17	22.34	**	**	29.93	16.75	3.67	18.57	45.37	31.73	2.49	43.08
Maize	10.83	2.91	9.86	39.41	**	**	-	-	**	**	-	-
Sorghum	3.94	1.06	**	**	-	-	**	**	**	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	**	**	**	**	**	**	-	-	-	-	-	-
PULSES	6.81	1.83	.76	3.04	**	**	**	**	**	**	**	**
Horse Beans	4.03	1.08	.65	2.60	1.84	1.03	**	**	1.39	.97	**	**
Chick Peas	**	**	**	**	**	**	**	**	**	**	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	-	-	**	**	**	**	-	-	**	**
Lentils	**	**	**	**	**	**	-	-	**	**	-	-
Vetch	**	**	-	-	**	**	**	**	**	**	**	**
OILSEEDS	**	**	**	**	**	**	**	**	**	**	**	**
Neug	**	**	**	**	**	**	**	**	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	**	**	**	**
Rape seed	**	**	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	1.02	.27	.39	1.56	**	**	**	**	**	**	**	**
Fenugreek	**	**	**	**	**	**	-	-	-	-	-	-
Spices	**	**	**	**	-	-	-	-	-	-	-	-
Potatoes	**	**	**	**	**	**	-	-	**	**	-	-
Other Vegetables	**	**	.16	.64	**	**	**	**	**	**	.02	.35
ALL TEMPORARY	365.68	98.24	18.60	74.34	178.60	99.94	19.76	100.00	142.94	99.98	5.78	100.00
Chat	**	**	**	**	-	-	-	-	-	-	-	-
Coffee	**	**	**	**	-	-	-	-	-	-	-	-
Enset	**	**	4.96	19.82	**	**	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-	-	-
Other Permanent	.26	.07	.24	.96	-	-	-	-	.03	.02	-	-
TOTAL PERMANENT	**	**	**	**	**	**	-	-	.03	.02	-	-
ALL CROPS	372.22	100.00	25.02	100.00	178.70	100.00	19.76	100.00	142.97	100.00	5.78	100.00

TABLE 2.6.4

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

EAST SHEWA, ARSI, BALE AND BORENA Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	601.42	92.98	18.42	70.82	321.28	90.85	**	**	209.05	98.79	**	**
Teff	203.46	31.45	**	**	**	**	**	**	125.87	59.48	-	-
Barely	98.08	15.16	**	**	82.25	23.26	**	**	5.09	2.41	-	-
Wheat	205.06	31.70	**	**	111.57	31.55	**	**	70.47	33.30	**	**
Maize	74.09	11.45	16.88	64.90	36.44	10.30	**	**	**	**	**	91.62
Sorghum	**	**	**	**	**	**	**	**	-	-	-	-
Millet	**	**	-	-	**	**	**	**	-	-	-	-
Oats	18.45	2.85	-	-	**	**	**	**	**	**	-	-
PULSES	23.39	3.62	**	**	**	**	**	**	2.51	1.19	-	-
Horse Beans	15.19	2.35	**	**	**	**	**	**	**	**	-	-
Chick Peas	2.66	.41	-	-	1.01	.29	-	-	**	**	-	-
Haricot Beans	1.95	.30	**	**	**	**	**	**	**	**	-	-
Field Peas	**	**	-	-	**	**	-	-	-	-	-	-
Lentils	.89	.14	-	-	.85	48.27	-	-	**	**	-	-
Vetch	**	**	-	-	**	**	-	-	**	**	-	-
OILSEEDS	**	**	**	**	**	**	**	**	**	**	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	**	**	**	**	-	-	-	-
Rape seed	**	**	**	**	**	**	-	-	**	**	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	-	-	**	**	-	-	-	-	-	-
Sesame	**	**	-	-	-	-	**	**	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	.78	3.00	**	**	**	**	**	**	**	**
Fenugreek	**	**	-	-	**	**	-	-	-	-	-	-
Spices	**	**	**	**	**	**	-	-	-	-	-	-
Potatoes	**	**	**	**	**	**	**	**	-	-	-	-
Other Vegetables	2.50	.39	.44	1.69	1.66	.47	**	**	**	**	**	**
ALL TEMPORARY	640.25	98.98	20.23	77.78	353.56	99.97	**	**	211.60	100.00	**	**
Chat	**	**	**	**	-	-	**	**	-	-	-	-
Coffee	**	**	**	**	-	-	**	**	-	-	-	-
Enset	**	**	**	**	-	-	**	**	-	-	-	-
Cotton	**	**	**	**	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	**	**	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	**	**	-	-	-	-
ALL CROPS	646.86	100.00	26.01	100.00	353.65	100.00	51.83	100.00	211.60	100.00	**	**

TABLE 2.6.5

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

EAST AND WEST HARERGE Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	64.78	77.10	13.06	69.99	12.17	86.87	18.90	79.55	15.41	77.28	5.22	68.24
Teff	5.44	6.47	**	**	**	**	.66	2.78	**	**	**	**
Barely	**	**	**	**	**	**	**	**	**	**	**	**
Wheat	2.96	3.52	**	**	**	**	**	**	**	**	**	**
Maize	22.48	26.76	6.23	33.39	1.88	13.42	7.09	29.84	5.12	25.68	**	**
Sorghum	32.67	38.88	5.14	27.55	5.89	42.04	10.40	43.77	8.59	43.08	**	**
Millet	**	**	-	-	-	-	**	**	**	**	-	-
Oats	**	**	**	**	**	**	-	-	-	-	-	-
PULSES	3.00	3.57	.45	2.41	.26	1.86	**	**	**	**	**	**
Horse Beans	**	**	**	**	**	**	**	**	-	-	-	-
Chick Peas	**	**	**	**	**	**	**	**	-	-	-	-
Haricot Beans	**	**	**	**	**	**	**	**	**	**	**	**
Field Peas	**	**	-	-	-	-	-	-	**	**	-	-
Lentils	**	**	**	**	**	**	-	-	**	**	-	-
Vetch	**	**	-	-	-	-	-	-	**	**	-	-
OILSEEDS	**	**	**	**	**	**	**	**	**	**	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	**	**	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	**	**	**	**	**	**	**	**	**	**	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	**	**	**	**	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	1.99	2.37	.49	2.63	**	**	.72	3.03	**	**	**	**
Fenugreek	**	**	**	**	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	.99	1.18	**	**	**	**	.43	1.81	**	**	-	-
Other Vegetables	.93	1.11	.35	1.88	**	**	**	**	.19	.95	**	**
ALL TEMPORARY	70.75	84.21	14.09	75.51	12.88	91.93	20.86	87.79	17.35	87.01	5.56	72.68
Chat	11.27	13.41	2.91	15.59	1.02	7.28	2.83	11.91	2.59	12.99	**	**
Coffee	**	**	**	**	**	**	-	-	-	-	**	**
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	**	**	-	-	**	**
Other Permanent	**	**	**	**	**	**	-	-	-	-	-	-
TOTAL PERMANENT	13.27	15.79	4.57	24.49	1.13	8.07	2.90	12.21	2.59	12.99	**	**
ALL CROPS	84.02	100.00	18.66	100.00	14.01	100.00	23.76	100.00	19.94	100.00	**	**

TABLE 2.7

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

SOMALIE

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	1.55	56.36	**	**	**	**	**	**	**	**	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	**	**	**	**	-	-	**	**	**	**	-	-
Maize	**	**	**	**	**	**	**	**	**	**	-	-
Sorghum	**	**	**	**	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	**	**	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	**	**	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	-	-	-	-	**	**	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	**	**	**	**	-	-
Chat	**	**	**	**	**	**	**	**	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	**	**	-	-	-	-
ALL CROPS	**	**	**	**	**	**	**	**	**	**	-	-

TABLE 2.8

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

BENSHANGUL GUMEZ

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	**	**	3.19	77.24	**	**	**	**	**	**	**	**
Teff	**	**	**	**	**	**	-	-	-	-	**	**
Barely	**	**	**	**	-	-	-	-	-	-	**	**
Wheat	**	**	**	**	**	**	-	-	-	-	**	**
Maize	2.18	27.63	1.94	46.97	**	**	**	**	**	**	-	-
Sorghum	**	**	**	**	**	**	-	-	**	**	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	**	**	-	-	-	-	-	-
Horse Beans	**	**	**	**	**	**	-	-	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	**	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	.07	.89	.07	1.69	-	-	-	-	-	-	-	-
Neug	**	**	**	**	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-	-	-
Rape seed	**	**	**	**	-	-	-	-	-	-	-	-
Ground Nuts	**	**	**	**	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	**	**	.04	.97	-	-	-	-	-	-	-	-
Potatoes	**	**	**	**	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	**	**	**	**	**	**
Chat	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	**	**	**	**	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	-	-	-	-	-	-	-	-
TOTAL PERMANENT	.09	1.14	.09	2.18	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	**	**	**	**	**	**	**	**

TABLE 2.9

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

(S.N.N.P.R)

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	250.70	57.97	27.99	16.23	183.69	87.60	23.89	73.33	13.30	92.62	1.83	55.29
Teff	94.55	21.86	.80	.46	82.14	39.17	7.46	22.90	3.36	23.40	**	**
Barely	19.25	4.45	**	**	11.01	5.25	**	**	**	**	**	**
Wheat	53.57	12.39	.84	.49	48.16	22.97	2.06	6.32	2.30	16.02	**	**
Maize	63.37	14.65	8.41	4.88	37.53	17.90	**	**	6.20	43.18	**	**
Sorghum	17.49	4.04	**	**	3.47	1.65	**	**	-	-	-	-
Millet	**	**	**	**	1.36	.65	**	**	-	-	-	-
Oats	**	**	-	-	**	**	-	-	-	-	-	-
PULSES	17.08	3.95	4.25	2.46	9.84	4.69	2.32	7.12	**	**	**	**
Horse Beans	7.34	1.70	1.55	.90	5.29	2.52	**	**	**	**	**	**
Chick Peas	3.30	.76	**	**	**	**	**	**	-	-	**	**
Haricot Beans	5.99	1.39	2.34	1.36	1.68	.80	**	**	**	**	**	**
Field Peas	**	**	**	**	-	-	**	**	-	-	-	-
Lentils	**	**	**	**	**	**	**	**	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	.23	.05	**	**	.11	.05	**	**	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	**	**	**	**	-	-	-	-
Rape seed	**	**	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	32.29	7.47	13.58	7.87	14.18	6.76	**	**	**	**	**	**
Fenugreek	**	**	**	**	**	**	**	**	-	-	-	-
Spices	16.09	3.72	.81	.47	**	**	**	**	-	-	-	-
Potatoes	2.88	.67	.73	.42	2.02	.96	**	**	-	-	**	**
Other Vegetables	13.13	3.04	11.99	6.95	.98	.47	**	**	**	**	**	**
ALL TEMPORARY	300.30	69.44	45.93	26.63	207.82	99.11	30.67	94.14	13.44	93.59	2.42	73.11
Chat	6.43	1.49	6.01	3.48	.13	.06	**	**	-	-	-	-
Coffee	21.87	5.06	18.51	10.73	1.29	.62	1.16	3.56	**	**	**	**
Enset	100.29	23.19	98.90	57.34	**	**	**	**	**	**	**	**
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	.16	.04	.14	.08	**	**	-	-	-	-	-	-
Fruits	1.50	.35	1.38	.80	**	**	**	**	**	**	**	**
Other Permanent	1.90	.44	1.60	.93	**	**	**	**	**	**	-	-
TOTAL PERMANENT	132.15	30.56	126.54	73.37	1.86	.89	1.91	5.86	**	**	**	**
ALL CROPS	432.45	100.00	172.47	100.00	209.68	100.00	32.58	100.00	14.36	100.00	3.31	100.00

TABLE 2.9.1

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

YEM, KEFICHO, MAJI, SHEKICHO AND BENCHI Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	2.05	45.66	**	**	**	**	**	**	1.01	100.00	-	-
Teff	1.04	23.16	-	-	**	**	**	**	**	**	-	-
Barely	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	.56	12.47	-	-	**	**	-	-	.39	38.61	-	-
Maize	**	**	**	**	**	**	-	-	-	-	-	-
Sorghum	.17	3.79	-	-	**	**	**	**	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	-	-	**	**	-	-	-	-	-	-
Horse Beans	**	**	-	-	**	**	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	-	-	**	**	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	-	-	-	-	-	-	-	-
ALL TEMPORARY	2.49	55.46	**	**	**	**	**	**	1.01	100.00	-	-
Chat	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	**	**	**	**	-	-	-	-	-	-	-	-
Enset	1.81	40.31	1.81	76.69	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	2.00	44.54	2.00	84.75	-	-	-	-	-	-	-	-
ALL CROPS	4.49	100.00	2.36	100.00	**	**	**	**	1.01	100.00	-	-

TABLE 2.9.2

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NORTH AND SOUTH OMO, GARDULA AND KONSO Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	44.56	60.30	18.19	39.70	19.97	95.41	2.57	77.41	3.24	100.00	**	**
Teff	**	**	**	**	**	**	**	**	**	**	**	**
Barely	**	**	**	**	**	**	**	**	-	-	**	**
Wheat	**	**	**	**	**	**	-	-	-	-	-	-
Maize	10.26	13.88	**	**	**	**	**	**	2.78	85.80	-	-
Sorghum	**	**	**	**	**	**	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	3.49	4.72	2.47	5.39	**	**	**	**	-	-	**	**
Horse Beans	**	**	**	**	-	-	-	-	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	-	-	**	**
Haricot Beans	2.98	4.03	2.07	4.52	**	**	**	**	-	-	**	**
Field Peas	**	**	**	**	-	-	**	**	-	-	-	-
Lentils	**	**	**	**	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	**	**	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	**	**	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	6.61	8.94	6.00	13.09	**	**	**	**	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	**	**	**	**	-	-	**	**	-	-	-	-
Potatoes	.43	.58	.28	.61	**	**	**	**	-	-	-	-
Other Vegetables	5.99	8.11	5.60	12.22	**	**	**	**	-	-	-	-
ALL TEMPORARY	54.70	74.02	26.69	58.25	20.87	99.71	**	**	3.24	100.00	**	**
Chat	**	**	**	**	-	-	-	-	-	-	-	-
Coffee	4.78	6.47	4.72	10.30	**	**	-	-	-	-	-	-
Enset	13.42	18.16	13.42	29.29	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-	-	-
Other Permanent	.34	.46	.33	.72	-	-	**	**	-	-	-	-
TOTAL PERMANENT	19.20	25.98	19.13	41.75	**	**	**	**	-	-	-	-
ALL CROPS	73.90	100.00	45.82	100.00	20.93	100.00	**	**	3.24	100.00	**	**

TABLE 2.9.3

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

HADIYA, KEMBATA AND GURAGE Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	190.76	66.97	**	**	156.03	87.20	**	**	6.77	98.54	1.25	69.44
Teff	73.73	25.89	**	**	66.09	36.94	4.65	20.81	2.26	32.90	**	**
Barely	13.65	4.79	.70	.94	10.45	5.84	**	**	**	**	**	**
Wheat	51.75	18.17	**	**	47.80	26.71	1.78	7.97	1.51	21.98	**	**
Maize	44.57	15.65	**	**	27.58	15.41	**	**	2.94	42.79	**	**
Sorghum	4.59	1.61	**	**	2.73	1.53	**	**	-	-	-	-
Millet	**	**	**	**	1.36	.76	**	**	-	-	-	-
Oats	**	**	-	-	**	**	-	-	-	-	-	-
PULSES	11.25	3.95	1.54	2.06	8.66	4.84	**	**	**	**	**	**
Horse Beans	6.88	2.42	1.19	1.59	5.22	2.92	**	**	**	**	**	**
Chick Peas	**	**	**	**	**	**	**	**	-	-	**	**
Haricot Beans	1.03	.36	**	**	.63	.35	**	**	-	-	**	**
Field Peas	**	**	**	**	-	-	-	-	-	-	-	-
Lentils	**	**	-	-	**	**	**	**	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	.19	.07	**	**	**	**	**	**	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	**	**	**	**	-	-	-	-
Rape seed	**	**	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	22.55	7.92	4.81	6.43	13.54	7.57	**	**	-	-	**	**
Fenugreek	**	**	**	**	**	**	**	**	-	-	-	-
Spices	15.88	5.58	.69	.92	**	**	**	**	-	-	-	-
Potatoes	2.45	.86	.44	.59	1.97	1.10	**	**	-	-	**	**
Other Vegetables	4.03	1.41	3.63	4.85	.39	.22	-	-	-	-	**	**
ALL TEMPORARY	224.75	78.91	15.53	20.75	178.33	99.66	**	**	6.79	98.84	**	**
Chat	4.49	1.58	4.39	5.86	**	**	**	**	-	-	-	-
Coffee	5.32	1.87	4.95	6.61	**	**	**	**	-	-	**	**
Enset	49.11	17.24	49.06	65.54	**	**	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	**	**	-	-	-	-	-	-
Fruits	**	**	**	**	**	**	-	-	-	-	-	-
Other Permanent	.87	.31	.67	.90	**	**	-	-	**	**	-	-
TOTAL PERMANENT	60.08	21.09	59.33	79.25	.60	.34	**	**	**	**	**	**
ALL CROPS	284.83	100.00	74.86	100.00	178.93	100.00	**	**	6.87	100.00	**	**

TABLE 2.9.4

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

SIDAMA, GEDIO, BURJI AND AMARO Zone

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	13.36	19.28	.67	1.36	**	**	3.63	52.99	**	**	-	-
Teff	2.20	3.18	-	-	**	**	.82	11.97	**	**	-	-
Barely	**	**	**	**	**	**	-	-	**	**	-	-
Wheat	**	**	-	-	**	**	**	**	**	**	-	-
Maize	8.27	11.94	**	**	**	**	**	**	**	**	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	.25	.51	.65	7.38	**	**	**	**	-	-
Horse Beans	.25	.36	.17	.34	**	**	**	**	-	-	-	-
Chick Peas	**	**	-	-	**	**	**	**	-	-	-	-
Haricot Beans	**	**	**	**	.55	6.24	**	**	**	**	-	-
Field Peas	**	**	-	-	-	-	**	**	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	2.77	4.00	2.41	4.88	**	**	.09	1.31	**	**	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	**	**	-	-	-	-	**	**	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-
Other Vegetables	2.75	3.97	2.41	4.88	**	**	**	**	**	**	**	**
ALL TEMPORARY	18.40	26.56	3.33	6.74	**	**	4.99	72.85	**	**	**	**
Chat	1.92	2.77	1.60	3.24	**	**	**	**	-	-	-	-
Coffee	11.60	16.74	8.67	17.54	**	**	1.15	16.79	**	**	**	**
Enset	35.95	51.88	34.61	70.03	**	**	**	**	**	**	**	**
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	**	**	**	**	**	**	**	**
Other Permanent	.70	1.01	.60	1.21	**	**	**	**	**	**	-	-
TOTAL PERMANENT	50.89	73.44	46.09	93.26	**	**	1.86	27.15	**	**	**	**
ALL CROPS	69.29	100.00	49.42	100.00	8.81	100.00	6.85	100.00	3.26	100.00	**	**

TABLE 2.10

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

GAMBELA

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	**	**	-	-	**	**	**	**	**	**	-	-
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	-	-	-	-	**	**	**	**	-	-
Sorghum	**	**	-	-	**	**	**	**	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	-	-	**	**	**	**	**	**	-	-
Chat	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	-	-	**	**	**	**	**	**	-	-

TABLE 2.11

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

HARARI

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	2.44	67.59	.23	62.16	.28	70.00	.98	70.00	.45	69.23	.52	66.67
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barely	.04	1.11	-	-	**	**	.01	.71	-	-	**	**
Wheat	.08	2.22	-	-	**	**	.02	1.43	.03	4.62	**	**
Maize	.68	18.84	.07	18.92	.06	15.00	.31	22.14	.11	16.92	.14	17.95
Sorghum	1.64	45.43	.16	43.24	.17	42.50	.64	45.71	.31	47.69	.36	46.15
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	-	-	-	-	**	**	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	-	-	-	-	.01	.71	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	.14	3.88	**	**	**	**	**	**	-	-	.02	2.56
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	.14	3.88	**	**	**	**	**	**	-	-	.02	2.56
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	.04	1.11	.01	2.70	**	**	.01	.71	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	-	-	**	**	-	-	-	-	-	-
Other Vegetables	.02	.55	.01	2.70	-	-	.01	.71	-	-	-	-
ALL TEMPORARY	2.64	73.13	.27	72.97	.30	75.00	1.08	77.14	.45	69.23	.54	69.23
Chat	.96	26.59	.10	27.03	.10	25.00	.32	22.86	.20	30.77	.24	30.77
Coffee	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	.01	.28	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	.97	26.87	.10	27.03	.10	25.00	.32	22.86	.20	30.77	.24	30.77
ALL CROPS	3.61	100.00	.37	100.00	.40	100.00	1.40	100.00	.65	100.00	.78	100.00

TABLE 2.12

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97 (1989 E.C.)

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	7.24	89.94		**	.31	62.00	.11	64.71	6.72	93.46	**	**
Teff	4.47	55.53		**	.09	18.00	**	**	4.34	60.36	**	**
Barely	**	**	**	**	**	**	**	**	.02	.28	**	**
Wheat	2.65	32.92	**	**	.17	34.00	.07	41.18	2.36	32.82	**	**
Maize	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	.01	.12	-	-	-	-	-	-	-	-	-	-
Millet	**	**	**	**	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	.72	8.94	**	**	.18	36.00	.06	35.29	.41	5.70	-	-
Horse Beans	.05	.62	**	**	**	**	-	-	**	**	-	-
Chick Peas	**	**	-	-	-	-	-	-	**	**	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	.22	2.73	**	**	.07	14.00	**	**	.12	1.67	-	-
Lentils	.26	3.23	**	**	.06	12.00	**	**	.16	2.23	-	-
Vetch	.18	2.24	**	**	.04	8.00	**	**	.10	1.39	-	-
OILSEEDS	**	**	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	.01	.10	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	.08	3.10	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	.08	.99	-	-	.01	2.00	-	-	.06	.83	-	-
Fenugreek	.03	.37	-	-	.01	2.00	-	-	.02	.28	-	-
Spices	**	**	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-
Other Vegetables	.05	.62	-	-	-	-	-	-	.04	.56	-	-
ALL TEMPORARY	8.05	100.00	.08	100.00	.50	100.00	.17	100.00	7.19	100.00	.03	100.00
CEREALS	7.10	82.51	-	-	-	-	-	-	-	-	-	-
Chat	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	8.05	100.00	.08	100.00	.50	100.00	.17	100.00	7.19	100.00	.03	100.00

TABLE 2.13

ESTIMATES OF FERTILIZER APPLIED AREA BY TYPE OF FERTILIZER FOR
MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1995/96(1988 E.C.)

DIRE DAWA

('000 HA)

TYPE OF CROP	TOTAL		NATURAL		DAP		UREA		DAP+UREA		NAT+COMM	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
CEREALS	1.10	85.27	.74	83.15	.05	100.00	.13	92.86	.10	90.91	**	**
Teff	-	-	-	-	-	-	-	-	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	-	-	-	-	-	-	-	-
Sorghum	1.04	80.62	.69	77.53	.05	100.00	.13	92.86	.10	90.91	**	**
Millet	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	.04	3.10	**	**	-	-	-	-	**	**	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	.04	3.10	.03	3.37	-	-	-	-	**	**	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	-	-	-	-	-	-	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	-	-	-	-	-	-	**	**
ALL TEMPORARY	1.16	89.92	.78	87.64	.05	100.00	.13	92.86	.11	100.00	**	**
Chat	.09	6.98	.07	7.87	-	-	**	**	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	.04	3.10	.04	4.49	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	.13	10.08	.11	12.36	-	-	**	**	-	-	-	-
ALL CROPS	1.29	100.00	.89	100.00	.05	100.00	.14	100.00	.11	100.00	**	**

3. Quantity of Commercial Fertilizer Applied by Type .

The total quantity of fertilizers applied in private holdings at national level was about 2.65 million quintals. It is important to note that the information on quantity was collected and estimated only for *commercial fertilizers*. However, section 2.5 above deals with application of both commercial and natural fertilizers in mix.

Table c : Summary of Quantity of Commercial Fertilizer Applied by Type

TYPE OF FERTILIZER	QUANTITY	
	('000 QUINTALS)	PERCENT
<i>DAP</i>	1,242.06	46.94
<i>UREA</i>	284.75	10.76
<i>DAP + UREA</i>	1,050.82	39.72
<i>Natural + Commercial</i>	68.14	2.58
Total	2,645.79	100.00

3.1 Quantity of DAP Applied.

From the total quantity of fertilizer applied, quantity of *DAP* was 1,242.06 thousand quintals or 46.94%. The total quantity of *DAP* applied for temporary and permanent crops was 1,231.92 and 10.14 thousand quintals respectively. Refer to Summary *Table d* and Table 3.1.

3.2 Quantity of UREA Applied.

From the total quantity of commercial fertilizer applied, quantity of *UREA* was 284.75 thousand quintals or 10.76%. The total quantity of *UREA* applied for temporary and permanent crops was 266.11 and 18.61 thousand quintals respectively.

3.3 Quantity of DAP and UREA Applied In Mix.

Out of the total quantity of commercial fertilizer applied, quantity of mixture of *DAP* and *UREA* was 1,050.82 thousand quintals or 39.72%. The total quantity of mixture of *DAP* and *UREA* applied to temporary and permanent crops were 1,029.28 and 21.54 thousand quintals respectively.

3.4 Quantity of Commercial with Natural Applied in Mix.

As mentioned above, *Commercial* along with *Natural* fertilizers applied area was reported during the survey year, and the quantity applied was 68.14 thousand quintals. Here the quantity however refers to only the *Commercial* fertilizers, whereas, the application was made by mixing any commercial with natural fertilizer. For details refer to Tables.

NOTE: If in some tables figures do not add up to total it is due to rounding.

TABLE 3.1

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NATIONAL

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM-W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	2,411.93	91.16	1,123.89	90.49	236.09	82.91	1,001.74	95.33	50.20	73.67
Teff	1,174.33	44.38	538.80	43.38	86.10	30.24	539.00	51.29	10.43	15.31
Barely	177.30	6.70	130.94	10.54	20.78	7.30	21.74	2.07	**	**
Wheat	576.89	21.80	238.80	19.23	35.18	12.35	294.42	28.02	8.50	12.47
Maize	336.80	12.73	135.76	10.93	68.99	24.23	114.17	10.86	17.86	26.21
Sorghum	71.05	2.69	14.59	1.17	17.51	6.15	29.77	2.83	**	**
Millet	65.21	2.46	56.52	4.55	6.47	2.27	**	**	**	**
Oats	10.35	.39	**	**	**	**	**	**	-	-
PULSES	74.21	2.80	42.66	3.43	9.74	3.42	19.30	1.84	**	**
Horse Beans	30.96	1.17	26.55	2.14	.77	.27	2.69	.26	**	**
Chick Peas	9.02	.34	6.54	.53	.81	.28	**	**	**	**
Haricot Beans	25.47	.96	4.27	.34	**	**	**	**	**	**
Field Peas	3.64	.14	2.49	.20	**	**	.92	.09	-	-
Lentils	3.61	.14	**	**	**	**	1.16	.11	-	-
Vetch	1.51	.06	**	**	**	**	**	**	-	-
OILSEEDS	33.04	1.25	28.71	2.31	1.37	.48	**	**	.79	1.16
Neug	4.68	.18	**	**	**	**	-	-	-	-
Lin Seed	3.22	.12	**	**	**	**	**	**	-	-
Rape seed	**	**	18.37	1.48	**	**	**	**	**	**
Ground Nuts	**	**	**	**	.31	.11	**	**	**	**
Sun Flower	**	**	**	**	-	-	**	**	-	-
Sesame	**	**	**	**	**	**	-	-	-	-
Castor Bean	**	**	-	-	-	-	-	-	-	-
OTHERS	62.87	2.38	36.66	2.95	**	**	6.07	.58	1.24	1.82
Fenugreek	.69	.03	**	**	**	**	.05	0.00	-	-
Spices	**	**	25.53	2.06	**	**	**	**	**	**
Potatoes	12.08	.45	7.05	.57	3.32	1.17	**	**	**	**
Other Vegetables	11.11	.42	3.62	.29	2.18	.77	4.23	.40	**	**
ALL TEMPORARY	2,582.05	97.59	1,231.92	99.18	266.11	93.45	1,029.28	97.95	54.71	80.29
Chat	48.65	1.84	5.23	.42	14.94	5.25	19.01	1.81	**	**
Coffee	8.91	.34	3.79	.31	2.16	.76	**	**	**	**
Enset	2.99	.11	**	**	**	**	**	**	**	**
Cotton	**	**	-	-	-	-	**	**	-	-
Tobacco	**	**	**	**	**	**	-	-	-	-
Fruits	**	**	**	**	**	**	**	**	**	**
Other Permanent	1.03	.04	.35	.03	**	**	**	**	-	-
TOTAL PERMANENT	63.74	2.41	10.14	.82	18.64	6.55	21.54	2.05	**	**
ALL CROPS	2,645.79	100.00	1,242.06	100.00	284.75	100.00	1,050.82	100.00	68.14	100.00

FIG 3. ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED
BY TYPE FOR MAJOR CROPS OF PRIVATE PEASANT HOLDINGS,
NATIONAL, 1996/97 (1989 E.C.)

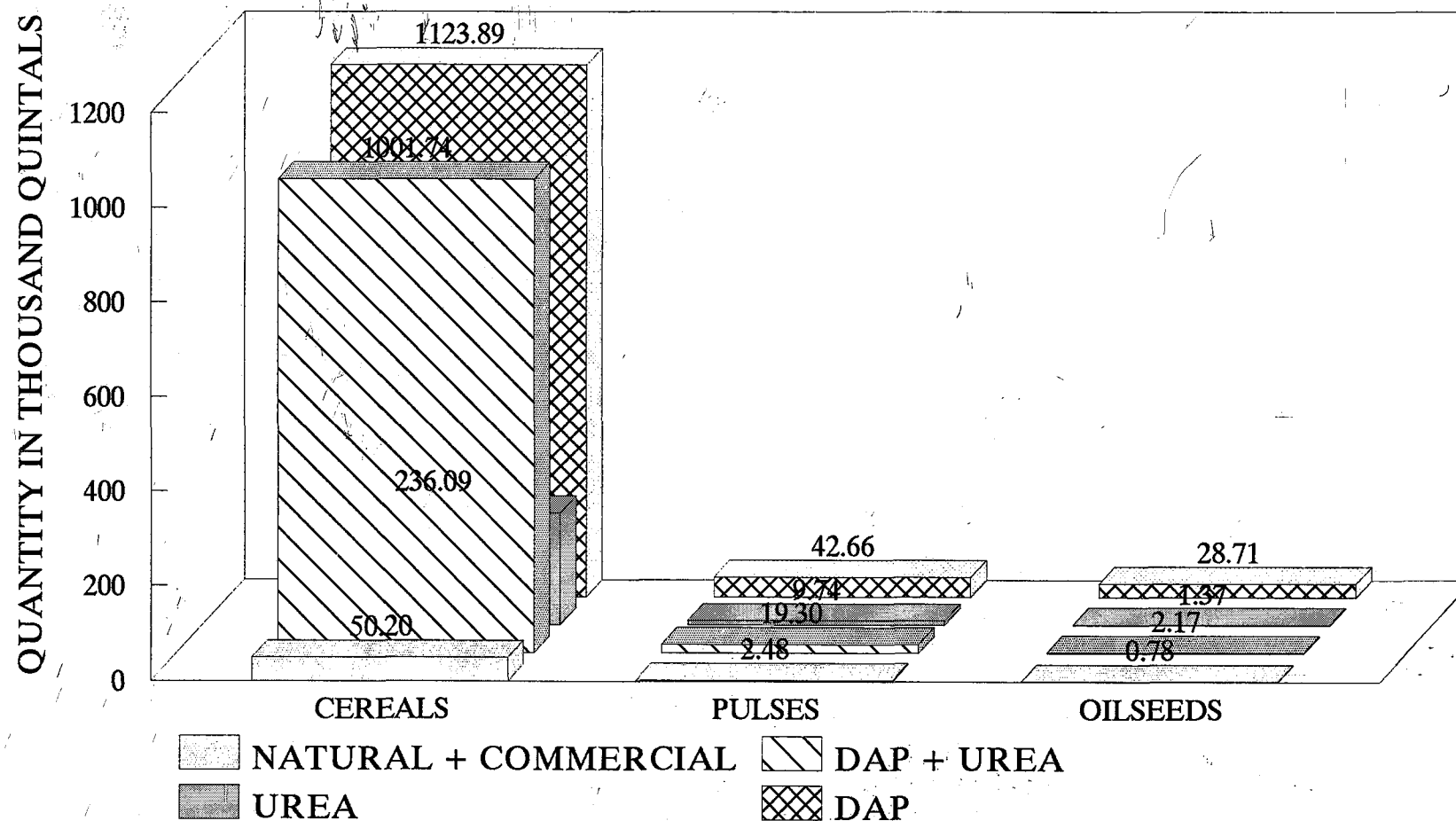


TABLE 3.2

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER APPLIED AREA BY REGION AND BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS
1996/97/97(1989 E.C.)

(000'QT)

REGION	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
TIGRAY	79.72	3.01	21.29	1.71	17.39	6.11	31.18	2.97	9.87	14.48
AFAR	.64	.02	.51	.04	.13	.04	-	-	-	-
AMHARA	581.03	21.96	292.69	23.56	55.09	19.35	225.33	21.44	7.92	11.62
OROMIYA	1,585.69	59.93	645.23	51.95	155.11	54.47	747.24	71.11	38.12	55.94
SOMALIE	.60	.02	.09	.01	.19	.07	.32	.03	-	-
BENSHANGUL-GUMUZ	1.84	.07	1.00	.08	.13	.04	.45	.04	.26	.38
S.N.N.P.R.	363.90	13.75	279.13	22.47	51.79	18.19	24.91	2.37	8.07	11.84
GAMBELA	.06	-	.05	-	.01	-	.01	-	-	-
HARARI	13.11	.50	1.28	.10	4.60	1.62	3.45	.33	3.78	5.54
ADDIS ABABA	18.77	.71	.71	.06	.18	.06	17.80	1.69	.09	.13
DIRE DAWA	.42	.02	.08	.01	.15	.05	.15	.01	.05	.07
TOTAL	2,645.78	100.00	1,242.06	100.00	284.76	100.00	1,050.83	100.00	68.14	100.00

**FIG. 4 ESTIMATES OF QUANTITY OF DAP AND UREA
USED BY REGION 1996/97 (1989 E.C.)**

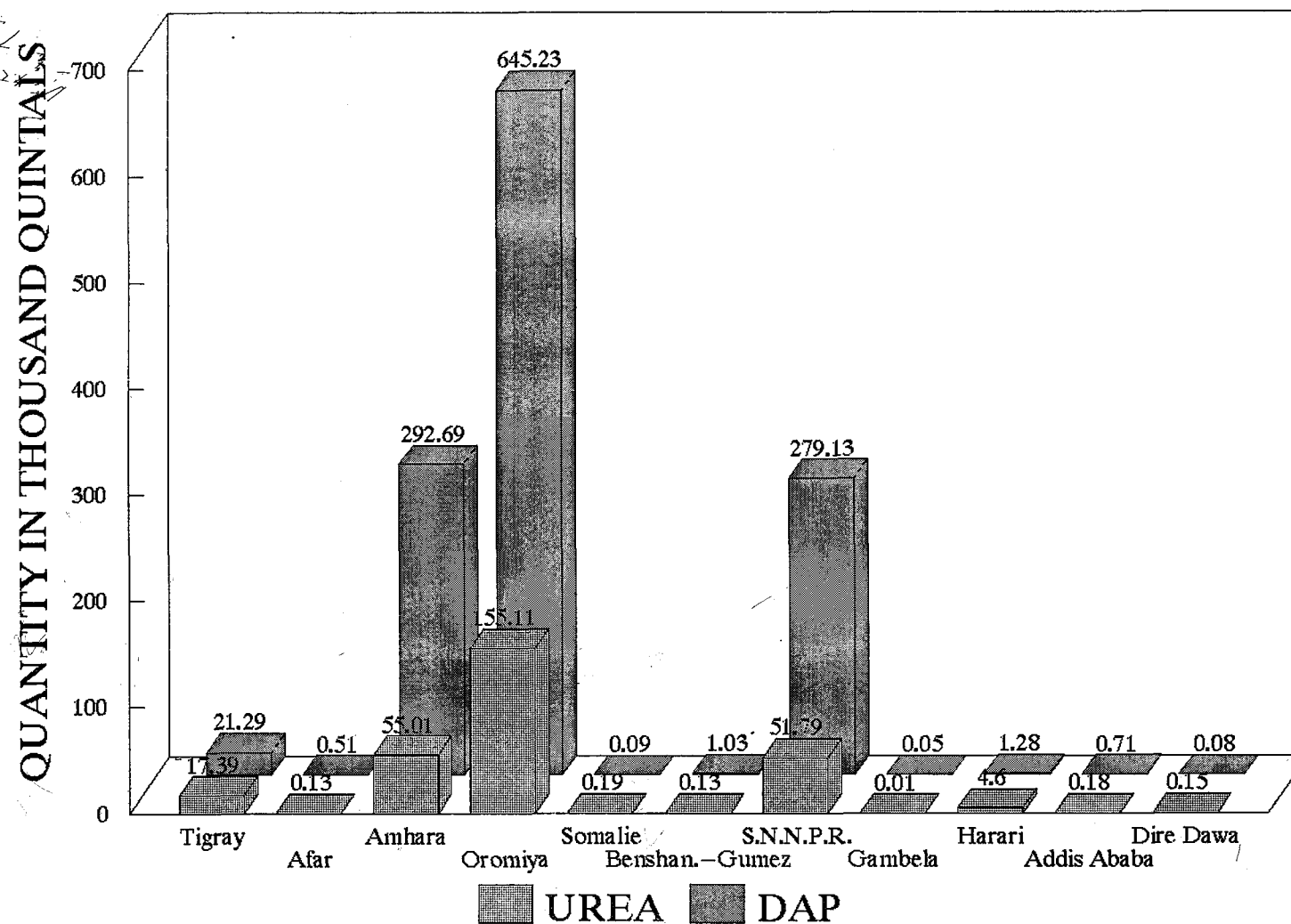


TABLE 3.9b2

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

10101 PERMANENT
010101 PERMANENT
TIGRAY
1010101
CROPS

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
GEREALS	79.56	99.80	21.18	99.44	17.34	99.77	31.18	100.00	9.86	100.00
Teff	33.08	41.50	**	**	5.77	33.20	14.66	47.02	**	**
Barely	15.59	19.56	5.03	23.62	5.10	29.34	**	**	**	**
Wheat	19.56	24.54	5.07	23.80	**	**	5.79	18.57	**	**
Maze	**	**	**	**	**	**	**	**	**	**
Sorghum	1.05	1.32	**	**	**	**	**	**	-	-
Millet	**	**	**	**	**	**	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	**	**	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	**	**	-	-	**	**	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	-	-	-	-	-	-
Lentils	**	**	-	-	**	**	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
ON SEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	**	**	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	-	-	-	-	-	-
ALL TEMPORARY	79.70	99.97	21.28	99.91	17.38	100.00	31.18	100.00	9.86	100.00
Chat	QUANTITY	-	QUANTITY	-	QUANTITY	-	QUANTITY	-	QUANTITY	-
Coffee	10101	-	10101	-	10101	-	10101	-	10101	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	-	-	-	-	-	-
ALL CROPS	79.72	100.00	21.30	100.00	17.38	100.00	31.18	100.00	9.86	100.00

TABLE 3.4

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

Afar

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	**	**	**	**	**	**	-	-	-	-
Teff	**	**	**	**	**	**	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-	-	-
Sorghum	**	**	**	**	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	-	-	-	-
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	**	**	-	-	-	-

TABLE 3.5

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

AMHARA

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	550.64	94.77	268.08	91.59	54.03	98.08	221.49	98.30	7.04	88.78
Teff	324.39	55.83	149.04	50.92	34.94	63.42	137.31	60.94	3.10	39.09
Barely	16.11	2.77	10.98	3.75	**	**	**	**	-	-
Wheat	83.54	14.38	15.36	5.25	**	**	59.85	26.56	**	**
Maize	69.25	11.92	44.93	15.35	**	**	15.86	7.04	2.26	28.50
Sorghum	5.56	.96	**	**	**	**	3.99	1.77	-	-
Millet	51.79	8.91	46.23	15.80	4.30	7.81	**	**	**	**
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	5.82	1.00	3.59	1.23	**	**	**	**	**	**
Horse Beans	1.86	.32	1.55	.53	**	**	-	-	**	**
Chick Peas	**	**	**	**	**	**	**	**	-	-
Haricot Beans	**	**	**	**	-	-	-	-	-	-
Field Peas	**	**	**	**	-	-	**	**	-	-
Lentils	**	**	**	**	-	-	**	**	-	-
Vetch	**	**	-	-	-	-	**	**	-	-
OILSEEDS	**	**	**	**	**	**	**	**	**	**
Neug	**	**	**	**	**	**	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-
Rape seed	**	**	**	**	**	**	**	**	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	**	**	-	-	**	**	-	-
Sesame	**	**	**	**	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	3.34	.57	2.37	.81	**	**	**	**	**	**
Fenugreek	**	**	-	-	**	**	**	**	-	-
Spices	1.04	.18	**	**	**	**	**	**	**	**
Potatoes	**	**	**	**	-	-	-	-	-	-
Other Vegetables	**	**	**	**	**	**	**	**	**	**
ALL TEMPORARY	581.03	100.00	292.67	100.00	55.09	100.00	225.31	100.00	7.93	100.00
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	-	-	-	-	**	**	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	-	-	**	**	-	-
ALL CROPS	581.05	100.00	292.68	100.00	55.09	100.00	225.32	100.00	7.93	100.00

TABLE 3.5.1

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

/ NORTH AND SOUTH GONDAR Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	85.42	98.27	36.66	98.15	9.73	93.92	37.55	99.47	**	**
Teff	59.50	68.45	23.90	63.99	7.46	72.01	27.03	71.60	**	**
Barely	**	**	**	**	.18	1.74	-	-	-	-
Wheat	7.14	8.21	**	**	.74	7.14	**	**	-	-
Maize	**	**	**	**	-	-	**	**	-	-
Sorghum	**	**	**	**	-	-	**	**	-	-
Millet	**	**	**	**	1.35	13.03	**	**	**	**
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	.19	1.83	-	-	-	-
Horse Beans	**	**	**	**	.19	1.83	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-
Rape seed	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	**	**	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	.44	4.25	**	**	-	-
Fenugreek	**	**	-	-	.12	1.16	-	-	-	-
Spices	**	**	**	**	.31	2.99	**	**	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	.01	.10	-	-	-	-
ALL TEMPORARY	86.90	99.98	37.34	99.97	10.36	100.00	37.74	99.97	**	**
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	-	-	-	-	**	**	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	-	-	**	**	-	-
ALL CROPS	86.92	100.00	37.35	100.00	10.36	100.00	37.75	100.00	**	**

TABLE 3.5.2

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

EAST, WEST GOJAM AND AGEWAWI Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	346.07	93.01	211.78	90.17	**	**	91.40	98.30	4.51	83.52
Teff	199.30	53.57	111.88	47.63	**	**	63.58	68.38	**	**
Barely	9.36	2.52	**	**	**	**	-	-	-	-
Wheat	31.22	8.39	10.81	4.60	**	**	14.10	15.16	**	**
Maize	66.53	17.88	44.85	19.10	**	**	13.23	14.23	**	**
Sorghum	**	**	**	**	-	-	-	-	-	-
Millet	39.09	10.51	35.64	15.17	**	**	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	2.68	1.14	**	**	-	-	**	**
Horse Beans	**	**	**	**	-	-	-	-	**	**
Chick Peas	**	**	**	**	**	**	-	-	-	-
Haricot Beans	**	**	**	**	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	**	**	**	**	**	**
Neug	**	**	**	**	**	**	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-
Rape seed	**	**	**	**	**	**	**	**	**	**
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	**	**	-	-	**	**	-	-
Sesame	**	**	**	**	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	2.37	.64	2.20	.94	**	**	-	-	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	**	**	**	**	-	-	**	**
Potatoes	**	**	**	**	-	-	-	-	-	-
Other Vegetables	**	**	**	**	**	**	-	-	**	**
ALL TEMPORARY	372.06	100.00	234.87	100.00	**	**	92.98	100.00	5.40	100.00
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	372.06	100.00	234.87	100.00	**	**	92.98	100.00	5.40	100.00

TABLE 3.5.3

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NORTH WOLO AND WAGHAMRA Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	8.85	99.44	**	**	**	**	7.70	99.35	**	**
Teff	3.22	36.18	**	**	**	**	2.26	29.16	**	**
Barely	**	**	**	**	-	-	**	**	-	-
Wheat	**	**	-	-	-	-	**	**	-	-
Maize	**	**	-	-	-	-	**	**	-	-
Sorghum	**	**	**	**	-	-	**	**	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	-	-	**	**	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	-	-	-	-	**	**	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	8.90	100.00	**	**	**	**	**	**	**	**
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobaco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	8.90	100.00	**	**	**	**	7.75	100.00	**	**

TABLE 3.5.4

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

SOUTH WOLO, OROMIA AND NORTH SHEWA Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	110.27	97.49	19.25	95.87	5.89	100.00	84.84	97.70	.29	100.00
Teff	62.37	55.14	13.06	65.04	4.87	82.68	44.44	51.17	-	-
Barely	6.18	5.46	2.67	13.30	-	-	3.51	4.04	-	-
Wheat	39.98	35.35	3.15	15.69	.98	16.64	35.57	40.96	.29	100.00
Maize	.06	.05	.04	.20	.01	.17	-	-	-	-
Sorghum	1.66	1.47	.33	1.64	.03	.51	1.30	1.50	-	-
Millet	.02	.02	-	-	-	-	.02	.02	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	2.40	2.12	.50	2.49	-	-	1.89	2.18	-	-
Horse Beans	.01	.01	.01	.05	-	-	-	-	-	-
Chick Peas	.73	.65	.13	.65	-	-	.60	.69	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	.49	.43	.22	1.10	-	-	.27	.31	-	-
Lentils	.67	.59	.14	.70	-	-	.52	.60	-	-
Vetch	.50	.44	-	-	-	-	.50	.58	-	-
OILSEEDS	.33	.29	.33	1.64	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	.33	.29	.33	1.64	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	.11	.10	-	-	-	-	.11	.13	-	-
Fenugreek	.01	.01	-	-	-	-	.01	.01	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	.10	.09	-	-	-	-	.10	.12	-	-
ALL TEMPORARY	113.11	100.00	20.08	100.00	5.89	100.00	86.84	100.00	.29	100.00
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	113.11	100.00	20.08	100.00	5.89	100.00	86.84	100.00	.29	100.00

TABLE 3.6

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

OROMIYA

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	1,464.87	92.38	601.57	93.23	128.26	82.68	707.46	94.68	27.59	72.41
Teff	700.64	44.19	286.49	44.40	39.97	25.77	371.27	49.68	**	**
Barely	118.99	7.50	95.85	14.86	8.71	5.61	13.80	1.85	**	**
Wheat	387.80	24.46	145.65	22.57	**	**	219.75	29.41	3.10	8.14
Maize	183.26	11.56	49.00	7.59	43.25	27.88	77.88	10.42	**	**
Sorghum	56.11	3.54	9.08	1.41	15.47	9.97	**	**	**	**
Millet	7.75	.49	7.05	1.09	.49	.32	**	**	-	-
Oats	**	**	**	**	**	**	**	**	-	-
PULSES	47.41	2.99	24.58	3.81	**	**	15.31	2.05	**	**
Horse Beans	**	**	**	**	**	**	2.63	.35	-	-
Chick Peas	3.30	.21	**	**	**	**	**	**	-	-
Haricot Beans	**	**	2.07	.32	**	**	**	**	**	**
Field Peas	2.38	.15	**	**	**	**	**	**	-	-
Lentils	2.50	.16	**	**	-	-	**	**	-	-
Vetch	.79	.05	**	**	**	**	**	**	-	-
OILSEEDS	**	**	**	**	**	**	**	**	-	-
Neug	**	**	**	**	**	**	-	-	-	-
Lin Seed	**	**	**	**	**	**	**	**	-	-
Rape seed	**	**	**	**	-	-	**	**	-	-
Ground Nuts	**	**	**	**	**	**	**	**	-	-
Sun Flower	**	**	**	**	-	-	-	-	-	-
Sesame	**	**	-	-	**	**	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	16.20	1.02	5.43	.84	4.95	3.19	5.32	.71	**	**
Fenugreek	**	**	**	**	-	-	-	-	-	-
Spices	**	**	**	**	**	**	-	-	-	-
Potatoes	7.51	.47	**	**	3.17	2.04	**	**	-	-
Other Vegetables	8.06	.51	2.14	.33	1.64	1.06	**	**	**	**
ALL TEMPORARY	1,539.13	97.06	640.75	99.31	140.84	90.79	728.69	97.52	28.87	75.77
Chat	42.80	2.70	4.12	.64	12.69	8.18	**	**	**	**
Coffee	**	**	.27	.04	**	**	**	**	**	**
Enset	**	**	**	**	**	**	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	**	**	**	**	**	**
Other Permanent	**	**	**	**	-	-	**	**	-	-
TOTAL PERMANENT	46.56	2.94	4.48	.69	14.29	9.21	18.56	2.48	**	**
ALL CROPS	1,585.69	100.00	645.23	100.00	155.13	100.00	747.25	100.00	38.10	100.00

TABLE 3.6.1

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

EAST AND WEST WELEGA Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	146.01	96.67	88.76	94.88	9.83	97.62	45.66	100.00	1.74	100.00
Teff	89.06	58.96	69.81	74.62	5.95	59.09	13.30	29.13	-	-
Barely	**	**	**	**	**	**	-	-	**	**
Wheat	8.44	5.59	3.34	3.57	**	**	4.14	9.07	**	**
Maize	38.81	25.70	7.54	8.06	**	**	27.52	60.27	**	**
Sorghum	1.10	.73	.17	.18	**	**	**	**	**	**
Millet	7.38	4.89	6.95	7.43	.31	3.08	**	**	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	**	**	-	-	-	-
Horse Beans	**	**	**	**	**	**	-	-	-	-
Chick Peas	**	**	**	**	-	-	-	-	-	-
Haricot Beans	**	**	**	**	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	**	**	-	-	-	-
Neug	**	**	**	**	**	**	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-
Rape seed	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	**	**	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	**	**
Spices	**	**	**	**	**	**	-	-	-	-
Potatoes	**	**	**	**	**	**	-	-	-	-
Other Vegetables	**	**	**	**	**	**	-	-	-	-
ALL TEMPORARY	151.00	99.97	93.53	99.98	10.05	99.80	45.66	100.00	1.74	100.00
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	**	**	-	-	**	**	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	**	**	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	-	-	-	-
ALL CROPS	151.04	100.00	93.55	100.00	10.07	100.00	45.66	100.00	1.74	100.00

TABLE 3.6.2

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

ILUBABOR AND JIMA Zone

* ('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	138.87	98.55	79.97	98.52	**	**	19.95	97.94	1.58	100.00
Teff	80.14	56.87	51.97	64.03	**	**	5.89	28.92	**	**
Barely	**	**	**	**	**	**	-	-	-	-
Wheat	**	**	**	**	**	**	-	-	-	-
Maize	49.05	34.81	19.04	23.46	**	**	14.06	69.02	1.51	95.57
Sorghum	**	**	**	**	-	-	-	-	-	-
Millet	**	**	**	**	**	**	-	-	-	-
Oats	**	**	-	-	**	**	-	-	-	-
PULSES	**	**	**	**	**	**	-	-	-	-
Horse Beans	**	**	**	**	**	**	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	-	-
Haricot Beans	**	**	-	-	**	**	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	**	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	**	**	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	**	**	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	**	**	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	**	**	-	-	-	-
ALL TEMPORARY	140.24	99.52	80.93	99.70	**	**	19.95	97.94	1.58	100.00
Chat	**	**	**	**	-	-	-	-	-	-
Coffee	**	**	**	**	**	**	**	**	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	-	-	**	**	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	**	**	-	-
ALL CROPS	140.91	100.00	81.17	100.00	**	**	20.37	100.00	1.58	100.00

TABLE 3.6.3

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NORTH AND WEST SHEWA Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	428.41	97.68	161.87	96.97	15.91	94.53	244.58	98.32	6.06	99.51
Teff	264.39	60.28	106.00	63.50	10.67	63.40	145.08	58.32	**	**
Barely	36.12	8.24	24.41	14.62	**	**	**	**	**	**
Wheat	126.07	28.74	31.04	18.60	3.62	21.51	88.83	35.71	2.58	42.36
Maize	**	**	**	**	-	-	**	**	-	-
Sorghum	**	**	-	-	**	**	**	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-
Oats	**	**	**	**	-	-	-	-	-	-
PULSES	7.63	1.74	**	**	**	**	**	**	-	-
Horse Beans	4.09	.93	1.56	0.86	**	**	**	**	-	-
Chick Peas	**	**	.81	.49	**	**	**	**	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	-	-	-	-
Lentils	**	**	**	**	-	-	**	**	-	-
Vetch	**	**	**	**	**	**	**	**	-	-
OILSEEDS	**	**	**	**	**	**	**	**	-	-
Neug	**	**	**	**	**	**	-	-	-	-
Lin Seed	**	**	-	-	-	-	**	**	-	-
Rape seed	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	**	**	**	**	**	**
Fenugreek	**	**	**	**	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	**	**	-	-	**	**	-	-
Other Vegetables	**	**	**	**	**	**	**	**	**	**
ALL TEMPORARY	438.13	99.90	166.91	99.99	16.83	100.00	248.32	99.82	6.09	100.00
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	**	**	**	**	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobaco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	-	-	-	-	**	**	-	-
TOTAL PERMANENT	**	**	**	**	-	-	**	**	-	-
ALL CROPS	438.59	100.00	166.92	100.00	16.83	100.00	248.77	100.00	6.09	100.00

TABLE 3.6.4

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

EAST SHEWA, ARSI, BALE AND BORENA Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	632.66	95.25	255.00	90.77	31.74	88.49	344.41	99.63	**	**
Teff	262.46	39.51	**	**	**	**	205.35	59.40	-	-
Barely	75.49	11.37	64.92	23.11	**	**	3.98	1.15	-	-
Wheat	246.48	37.11	106.76	38.00	**	**	**	**	**	**
Maize	36.94	5.56	17.32	6.17	**	**	**	**	**	**
Sorghum	**	**	**	**	**	**	-	-	-	-
Millet	**	**	**	**	**	**	-	-	-	-
Oats	**	**	**	**	**	**	**	**	-	-
PULSES	**	**	**	**	**	**	**	**	-	-
Horse Beans	**	**	**	**	**	**	**	**	-	-
Chick Peas	**	**	**	**	-	-	**	**	-	-
Haricot Beans	.95	.14	**	**	**	**	**	**	-	-
Field Peas	**	**	**	**	-	-	-	-	-	-
Lentils	**	**	**	**	-	-	**	**	-	-
Vetch	**	**	**	**	-	-	**	**	-	-
OILSEEDS	**	**	**	**	**	**	**	**	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	**	**	-	-	-	-
Rape seed	**	**	**	**	-	-	**	**	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	**	**	**	**	-	-	-	-	-	-
Sesame	**	**	-	-	**	**	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	**	**	**	**	**	**
Fenugreek	**	**	**	**	-	-	-	-	-	-
Spices	**	**	**	**	-	-	-	-	-	-
Potatoes	**	**	**	**	**	**	-	-	-	-
Other Vegetables	**	**	**	**	**	**	**	**	**	**
ALL TEMPORARY	662.71	99.77	280.88	99.98	34.40	95.90	345.70	100.00	**	**
Chat	**	**	-	-	**	**	-	-	-	-
Coffee	**	**	**	**	**	**	-	-	-	-
Enset	**	**	-	-	**	**	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	-	-	-	-
ALL CROPS	664.23	100.00	280.93	100.00	35.87	100.00	345.70	100.00	**	**

TABLE 3.6.5

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

EAST AND WEST HARERGE Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	118.94	62.27	16.00	70.33	33.38	61.23	52.84	60.93	**	**
Teff	4.58	2.40	**	**	**	**	**	**	**	**
Barely	**	**	**	**	**	**	**	**	-	-
Wheat	3.13	1.64	**	**	.91	1.67	**	**	**	**
Maize	57.22	29.96	4.72	20.75	16.53	30.32	27.04	31.18	**	**
Sorghum	53.33	27.92	7.86	34.55	15.05	27.60	**	**	**	**
Millet	**	**	-	-	**	**	**	**	-	-
Oats	**	**	**	**	-	-	-	-	-	-
PULSES	**	**	**	**	**	**	**	**	**	**
Horse Beans	**	**	**	**	**	**	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	-	-
Haricot Beans	**	**	**	**	**	**	**	**	**	**
Field Peas	**	**	-	-	-	-	**	**	-	-
Lentils	**	**	**	**	-	-	**	**	-	-
Vetch	**	**	-	-	-	-	**	**	-	-
OILSEEDS	**	**	**	**	**	**	**	**	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	-	-	-	-	**	**	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	**	**	**	**	**	**	**	**	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	8.19	4.29	**	**	2.58	4.73	**	**	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	3.63	1.90	**	**	**	**	**	**	-	-
Other Vegetables	4.56	2.39	**	**	**	**	**	**	**	**
ALL TEMPORARY	147.12	77.03	18.59	81.71	41.73	76.54	69.03	79.60	**	**
Chat	42.20	22.09	4.00	17.58	12.20	22.38	**	**	**	**
Coffee	**	**	**	**	-	-	-	-	**	**
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	**	**	-	-	**	**
Other Permanent	**	**	**	**	-	-	-	-	-	-
TOTAL PERMANENT	43.88	22.97	4.16	18.29	12.79	23.46	**	**	**	**
ALL CROPS	191.00	100.00	22.75	100.00	54.52	100.00	86.72	100.00	**	**

TABLE 3.7

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

SOMALIE

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	**	**	**	**	**	**	**	**	-	-
Teff	-	-	-	-	-	-	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-
Wheat	**	**	-	-	**	**	**	**	-	-
Maize	**	**	**	**	**	**	**	**	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	-	-	**	**	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	-	-	**	**	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	**	**	-	-
Chat	**	**	**	**	**	**	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobaco	**	**	-	-	**	**	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	-	-	-	-
ALL CROPS	**	**	**	**	**	**	**	**	-	-

TABLE 3.8

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

BENSHANGUL GUMEZ

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	**	**	**	**	**	**	**	**	**	**
Teff	**	**	**	**	-	-	-	-	**	**
Barely	**	**	**	**	-	-	-	-	**	**
Wheat	**	**	**	**	-	-	-	-	**	**
Maize	.47	25.41	-	-	**	**	**	**	-	-
Sorghum	**	**	-	-	-	-	**	**	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	-	-	-	-	-	-
Horse Beans	**	**	**	**	-	-	-	-	-	-
Chick Peas	**	**	**	**	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	**	**	**	**
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	**	**	**	**	**	**

TABLE 3.9

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

(S.N.N.P.R)

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	287.47	79.00	230.10	82.43	**	**	21.56	86.55	2.88	35.64
Teff	102.85	28.26	92.83	33.26	5.27	10.18	3.96	15.90	**	**
Barely	26.39	7.25	18.98	6.80	**	**	**	**	**	**
Wheat	79.90	21.96	72.22	25.87	2.92	5.64	3.73	14.97	**	**
Maize	71.78	19.73	41.08	14.72	**	**	12.02	48.25	**	**
Sorghum	3.21	.88	3.06	1.10	**	**	-	-	-	-
Millet	**	**	1.91	.68	**	**	-	-	-	-
Oats	**	**	**	**	-	-	-	-	-	-
PULSES	19.77	5.43	14.19	5.08	**	**	**	**	**	**
Horse Beans	9.89	2.72	8.81	3.16	**	**	**	**	**	**
Chick Peas	**	**	**	**	**	**	-	-	**	**
Haricot Beans	6.01	1.65	2.16	.77	**	**	**	**	**	**
Field Peas	**	**	-	-	**	**	-	-	-	-
Lentils	**	**	**	**	**	**	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-
Rape seed	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	28.78	10.31	**	**	**	**	**	**
Fenugreek	**	**	**	**	**	**	-	-	-	-
Spices	**	**	25.02	8.96	**	**	-	-	**	**
Potatoes	2.94	.81	2.74	.98	**	**	-	-	**	**
Other Vegetables	2.13	.59	.96	.34	**	**	**	**	**	**
ALL TEMPORARY	351.08	96.48	273.94	98.14	**	**	23.19	93.10	5.05	62.50
Chat	1.60	.44	**	**	**	**	**	**	-	-
Coffee	7.86	2.16	3.51	1.26	1.64	2.40	.92	3.69	**	**
Enset	**	**	**	**	**	**	**	**	**	**
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	-	-	-	-	-	-
Fruits	**	**	**	**	**	**	**	**	**	**
Other Permanent	.49	.13	**	**	**	**	**	**	-	-
TOTAL PERMANENT	12.80	3.52	5.19	1.86	2.87	5.54	**	**	**	**
ALL CROPS	363.88	100.00	279.13	100.00	**	**	24.91	100.00	8.08	100.00

TABLE 3.9.1

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

YEM, KEFICHO, MAJI, SHEKICHO AND BENCHI Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	3.01	95.25	**	**	**	**	1.64	100.00	-	-
Teff	**	**	**	**	**	**	**	**	-	-
Barely	-	-	-	-	-	-	-	-	-	-
Wheat	.85	26.90	**	**	-	-	.69	42.07	-	-
Maize	**	**	**	**	-	-	-	-	-	-
Sorghum	**	**	**	**	**	**	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	-	-	-	-	-	-
Horse Beans	**	**	**	**	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	**	**	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	3.16	100.00	**	**	**	**	1.64	100.00	-	-
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	3.16	100.00	**	**	**	**	1.64	100.00	-	-

TABLE 3.9.2

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

NORTH AND SOUTH OMO, GARDULA AND KONSO Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	20.14	92.73	**	**	1.37	79.19	5.30	100.00	**	**
Teff	**	**	**	**	.95	54.91	**	**	**	**
Barely	**	**	**	**	**	**	-	-	**	**
Wheat	**	**	**	**	-	-	-	-	-	-
Maize	8.26	38.03	**	**	**	**	4.60	86.79	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	.53	2.44	**	**	**	**	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	**	**	**	**	-	-	-	-	-	-
Haricot Beans	**	**	**	**	**	**	-	-	-	-
Field Peas	**	**	-	-	**	**	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	**	**	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	-	-	**	**	-	-	-	-
Potatoes	**	**	**	**	**	**	-	-	-	-
Other Vegetables	**	**	**	**	**	**	-	-	-	-
ALL TEMPORARY	**	**	**	**	1.72	99.42	5.30	100.00	**	**
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	**	**	**	**	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	-	-	**	**	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	-	-	-	-
ALL CROPS	21.72	100.00	**	**	1.73	100.00	5.30	100.00	**	**

TABLE 3.9.3

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

HADIYA, KEMBATA AND GURAGE Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	249.83	80.66	208.95	82.51	**	**	10.67	98.61	2.44	59.08
Teff	87.44	28.23	81.25	32.08	3.53	8.50	2.27	20.98	**	**
Barely	24.20	7.81	18.53	7.32	**	**	**	**	**	**
Wheat	77.78	25.11	71.83	28.36	2.54	6.11	2.38	22.00	**	**
Maize	53.97	17.42	32.43	12.81	**	**	5.84	53.97	**	**
Sorghum	3.10	1.00	2.98	1.18	**	**	-	-	-	-
Millet	**	**	1.91	.75	**	**	-	-	-	-
Oats	**	**	**	**	-	-	-	-	-	-
PULSES	15.35	4.96	13.06	5.16	**	**	**	**	**	**
Horse Beans	9.79	3.16	8.71	3.44	**	**	**	**	**	**
Chick Peas	**	**	**	**	**	**	-	-	**	**
Haricot Beans	**	**	1.18	.47	-	-	-	-	**	**
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	**	**	**	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	**	**	**	**	-	-	-	-	-	-
Rape seed	**	**	**	**	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	28.12	11.10	**	**	-	-	**	**
Fenugreek	**	**	**	**	**	**	-	-	-	-
Spices	**	**	25.02	9.88	**	**	-	-	-	-
Potatoes	2.77	.89	2.67	1.05	**	**	-	-	**	**
Other Vegetables	.37	.12	.37	.15	-	-	-	-	-	-
ALL TEMPORARY	307.04	99.13	250.99	99.11	**	**	10.70	98.89	**	**
Chat	**	**	**	**	**	**	**	**	-	-
Coffee	**	**	**	**	**	**	-	-	**	**
Enset	**	**	**	**	**	**	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	-	-	-	-	-	-
Fruits	**	**	**	**	-	-	-	-	-	-
Other Permanent	**	**	**	**	-	-	**	**	-	-
TOTAL PERMANENT	2.71	.87	2.26	.89	**	**	**	**	**	**
ALL CROPS	309.75	100.00	253.25	100.00	**	**	10.82	100.00	**	**

TABLE 3.9.4

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

SIDAMA, GEDIO, BURJI AND AMARO Zone

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	14.49	49.54	**	**	3.63	43.47	3.95	55.24	-	-
Teff	1.85	6.32	**	**	.66	7.90	**	**	-	-
Barely	**	**	**	**	-	-	**	**	-	-
Wheat	**	**	**	**	**	**	**	**	-	-
Maize	9.42	32.21	**	**	**	**	**	**	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	**	**	**	**	**	**
Horse Beans	**	**	**	**	**	**	-	-	-	-
Chick Peas	**	**	**	**	**	**	-	-	-	-
Haricot Beans	**	**	**	**	**	**	**	**	**	**
Field Peas	**	**	-	-	**	**	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	**	**	**	**	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	**	**	-	-	**	**	-	-	**	**
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	**	**	**	**	**	**
ALL TEMPORARY	19.68	67.28	**	**	**	**	**	**	**	**
Chat	**	**	**	**	**	**	-	-	-	-
Coffee	5.87	20.07	**	**	1.61	19.28	**	**	**	**
Enset	**	**	**	**	**	**	**	**	**	**
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	**	**	**	**	**	**
Other Permanent	**	**	**	**	.12	1.44	**	**	-	-
TOTAL PERMANENT	9.57	32.72	**	**	2.64	31.62	**	**	**	**
ALL CROPS	29.25	100.00	10.27	100.00	8.35	100.00	7.15	100.00	**	**

TABLE 3.10

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

GAMBELA

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	**	**	**	**	**	**	**	**	-	-
Teff	-	-	-	-	-	-	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	-	-	**	**	-	-
Sorghum	**	**	**	**	**	**	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	**	**	-	-
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobaco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	**	**	**	**	-	-

TABLE 3.11

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

HARARI

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		• COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	8.44	64.33	.83	64.84	2.93	63.83	2.19	63.85	2.47	65.34
Teff	-	-	-	-	-	-	-	-	-	-
Barely	.09	.69	**	**	.03	.65	**	**	**	**
Wheat	.30	2.29	**	**	.07	1.53	.13	3.79	**	**
Maize	3.63	27.67	.31	24.22	1.37	29.85	.84	24.49	1.11	29.37
Sorghum	4.41	33.61	.41	32.03	1.46	31.81	1.21	35.28	1.32	34.92
Millet	-	-	-	-	-	-	-	-	-	-
Oats	**	**	**	**	-	-	-	-	-	-
PULSES	.09	.69	**	**	**	**	**	**	**	**
Horse Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	.09	.69	**	**	**	**	**	**	**	**
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	.28	2.13	**	**	.18	3.92	-	-	**	**
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	.28	2.13	**	**	.18	3.92	-	-	**	**
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	.13	.99	**	**	.06	1.31	-	-	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	**	**	**	**	-	-	-	-
Other Vegetables	.08	.61	-	-	.05	1.09	-	-	**	**
ALL TEMPORARY	8.94	68.14	.90	70.31	3.20	69.72	2.20	64.14	2.60	68.78
Chat	4.10	31.25	.37	28.91	1.33	28.98	1.23	35.86	1.17	30.95
Coffee	**	**	**	**	**	**	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	-	-	**	**	-	-	**	**
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	4.18	31.86	.38	29.69	1.39	30.28	1.23	35.86	1.18	31.22
ALL CROPS	13.12	100.00	1.28	100.00	4.59	100.00	3.43	100.00	3.78	100.00

TABLE 3.12

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

ADDIS ABABA

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	17.65	94.08	.51	71.83	.13	68.42	16.96	95.44	.05	62.50
Teff	12.03	64.13	.17	23.94	.03	15.79	11.80	66.40	.02	25.00
Barely	**	**	**	**	**	**	.02	.11	**	**
Wheat	5.50	29.32	.26	36.62	.09	47.37	5.14	28.93	**	**
Maize	-	-	-	-	-	-	-	-	-	-
Sorghum	**	**	**	**	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	.93	4.96	.18	25.35	**	**	.65	3.66	**	**
Horse Beans	**	**	.01	1.41	-	-	**	**	**	**
Chick Peas	**	**	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-
Field Peas	.27	1.44	.08	11.27	**	**	.16	.90	-	-
Lentils	.37	1.97	.06	8.45	**	**	.29	1.63	-	-
Vetch	.21	1.12	.03	4.23	**	**	.17	.96	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	.18	.96	.02	2.82	-	-	.16	.90	-	-
Fenugreek	.04	.21	**	**	-	-	.03	.17	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	.14	.75	.01	1.41	-	-	.13	.73	-	-
ALL TEMPORARY	18.76	100.00	.71	100.00	.19	100.00	17.77	100.00	.08	100.00
Chat	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobaco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-
ALL CROPS	18.76	100.00	.71	100.00	.19	100.00	17.77	100.00	.08	100.00

TABLE 3.13

ESTIMATES OF QUANTITY OF COMMERCIAL FERTILIZER BY TYPE
OF FERTILIZER FOR MEHER SEASON CROPS OF PRIVATE HOLDINGS IN
1996/97(1989 E.C.)

DIRE DAWA

('000 QT)

TYPE OF CROP	TOTAL		DAP		UREA		DAP + UREA		COMM W/NAT	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
CEREALS	.32	78.05	**	**	.11	78.57	**	**	**	**
Teff	-	-	-	-	-	-	-	-	-	-
Barely	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Maize	**	**	-	-	**	**	-	-	-	-
Sorghum	.30	73.17	**	**	.10	71.43	**	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	-	-	-	-	**	**	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	-	-	-	-	**	**	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-
OTHERS	**	**	**	**	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-
Other Vegetables	**	**	**	**	-	-	-	-	-	-
ALL TEMPORARY	.37	90.24	.07	87.50	.11	78.57	**	**	**	**
Chat	**	**	**	**	**	**	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	-	-	-	-
ALL CROPS	.41	100.00	.08	100.00	.14	100.00	**	**	**	**

4. Quantity of Local and Improved Seed Applied by Type of Crop

The total quantity of *local* and *improved seed* used by private peasant holdings during the 1996/97 agriculture year are estimated to be 5,465.15 and 96.39 thousand quintals for major crops at national level. From the total quantity of seed applied only 1.73% was improved seed while the other 98.27% is attributed to local seed. From result one can conclude that the quantity of improved seed used is inconsiderable compared to that of the local seed.

Table d : Summary of Quantity of Local and improved seed applied

Type of seed	Quantity ('000)	Percent
Local seed	5,465.15	98.27
Improved seed	96.39	1.73
Total	5,561.54	100

Table 4.1 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

NATIONAL		
CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	96.31	4,370.54
Teff	11.74	1,112.54
Barley	**	1,027.67
Wheat	63.01	1,095.08
Maize	17.88	615.18
Sorghum	.55	341.97
Millet	-	113.61
Oats	-	64.49
Pulses	**	945.97
Horse Beans	**	426.60
Field Peas	-	185.60
Haricot Beans	**	85.89
Chick Peas	**	114.58
Lentils	**	41.66
Vetch	-	91.64
Others	-	148.64
Neug	-	41.45
Linseed	-	75.12
Rapeseed	-	**
Ground Nuts	-	12.03
Sunflower	-	1.21
Sesame	-	4.40
Fenugreek	-	7.89
All Crops	96.39	5,465.15

Table 4.2 Estimates of Quantity of Improved Seed and Local Seed
by Regions for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

NATIONAL		
REGION	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
TIGRAY	5.79	339.34
AFAR	-	9.76
AMHARA	32.59	1,696.20
OROMIYA	50.23	2,845.51
SOMALIE	1.11	31.72
BENS. GUMEZ	0.01	35.54
S.N.N.P.R.	6.47	491.91
GAMBELA	0.84	59.02
HARARI	0.01	4.66
ADDIS ABABA	0.12	11.34
DIRE DAWA	0.03	1.97
TOTAL	96.39	5,465.15

**FIG. 5 ESTIMATES OF QUANTITY OF SEED BY TYPE OF SEED ,
BY REGION , 1996/97 (1989 E.C.)**

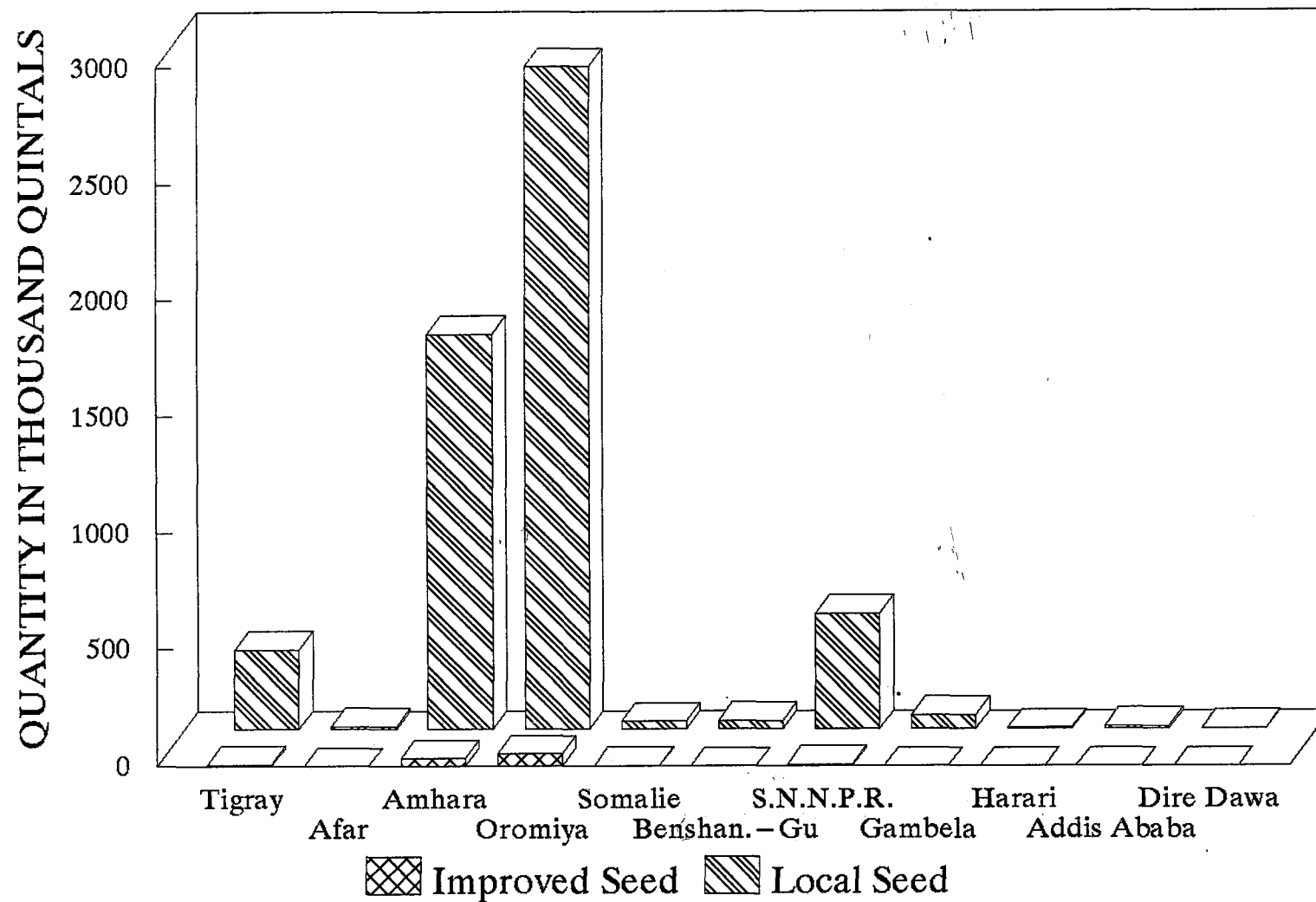


Table 4.3 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

TIGRAY

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	**	311.67
Teff	.95	42.33
Barley	**	101.12
Wheat	**	76.71
Maize	**	23.25
Sorghum	-	43.25
Millet	-	24.89
Oats	-	**
Pulses	-	24.60
Horse Beans	-	11.93
Field Peas	-	3.01
Haricot Beans	-	**
Chick Peas	-	4.00
Lentils	-	3.15
Vetch	-	2.31
Others	-	3.07
Neug	-	**
Linseed	-	**
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	**
Fenugreek	-	**
All Crops	5.79	339.34

Table 4.4 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

Afar

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	-	**
Teff	-	**
Barley	-	**
Wheat	-	**
Maize	-	.42
Sorghum	-	**
Millet	-	-
Oats	-	-
Pulses	-	**
Horse Beans	-	-
Field Peas	-	**
Haricot Beans	-	-
Chick Peas	-	**
Lentils	-	**
Vetch	-	-
Others	-	-
Neug	-	-
Linseed	-	-
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	-
Fenugreek	-	-
All Crops	-	**

Table 4.5 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

AMHARA		
	QUANTITY OF	
CROP TYPE	IMPROVED SEED	LOCAL SEED
Cereals	32.58	1,257.29
Teff	7.06	400.63
Barley	-	308.64
Wheat	23.10	217.10
Maize	2.34	117.36
Sorghum	**	133.25
Millet	-	67.24
Oats	-	13.07
Pulses	**	389.07
Horse Beans	**	172.96
Field Peas	-	65.05
Haricot Beans	-	12.46
Chick Peas	-	70.49
Lentils	-	21.59
Vetch	-	46.52
Others	-	49.84
Neug	-	20.73
Linseed	-	22.11
Rapeseed	-	.77
Ground Nuts	-	-
Sunflower	-	**
Sesame	-	**
Fenugreek	-	3.02
All Crops	32.59	1,696.20

Table 4.5.1 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

NORTH AND SOUTH GONDAR Zone		
	QUANTITY OF	
CROP TYPE	IMPROVED SEED	LOCAL SEED
Cereals	10.10	401.87
Teff	5.47	128.23
Barley	-	97.68
Wheat	**	47.91
Maize	**	32.15
Sorghum	**	62.18
Millet	-	31.13
Oats	-	**
Pulses	-	110.42
Horse Beans	-	55.54
Field Peas	-	13.84
Haricot Beans	-	**
Chick Peas	-	23.70
Lentils	-	2.91
Vetch	-	7.33
Others	-	24.01
Neug	-	9.86
Linseed	-	**
Rapeseed	-	**
Ground Nuts	-	-
Sunflower	-	**
Sesame	-	**
Fenugreek	-	**
All Crops	10.10	536.30

Table 4.5.2 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

EAST, WEST GOJAM AND AGEWAWI Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	9.45	486.05
Teff	.69	197.69
Barley	-	104.65
Wheat	**	68.04
Maize	1.97	67.59
Sorghum	-	12.64
Millet	-	34.90
Oats	-	**
Pulses	-	98.96
Horse Beans	-	36.34
Field Peas	-	13.20
Haricot Beans	-	**
Chick Peas	-	19.22
Lentils	-	**
Vetch	-	25.89
Others	-	19.80
Neug	-	10.15
Linseed	-	**
Rapeseed	-	.53
Ground Nuts	-	-
Sunflower	-	**
Sesame	-	**
Fenugreek	-	**
All Crops	9.45	604.81

Table 4.5.3 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

NORTH WOLO AND WAGHAMRA Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	**	110.83
Teff	**	21.45
Barley	-	46.61
Wheat	**	21.99
Maize	-	1.14
Sorghum	**	17.94
Millet	-	.32
Oats	-	**
Pulses	-	38.98
Horse Beans	-	13.61
Field Peas	-	13.06
Haricot Beans	-	**
Chick Peas	-	3.91
Lentils	-	6.08
Vetch	-	**
Others	-	1.33
Neug	-	**
Linseed	-	.72
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	**
Sesame	-	**
Fenugreek	-	**
All Crops	**	151.14

Table 4.5.4 Estimates of Quantity of Improved Seed and Local Seed by type of Crops for Private Peasant Holdings 1996/97 (1989 E.C.)

(000 Quintal)

SOUTH WOLO, OROMIA AND NORTH SHEWA Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	8.92	258.52
Teff	**	53.26
Barley	-	59.70
Wheat	8.09	79.16
Maize	-	16.47
Sorghum	-	40.49
Millet	-	**
Oats	-	8.56
Pulses	**	140.71
Horse Beans	**	67.46
Field Peas	-	24.95
Haricot Beans	-	.94
Chick Peas	-	23.66
Lentils	-	12.48
Vetch	-	11.22
Others	-	4.68
Neug	-	**
Linseed	-	2.83
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	**
Sesame	-	**
Fenugreek	-	1.01
All Crops	8.93	403.91

Table 4.6 Estimates of Quantity of Improved Seed and Local Seed by type of Crops for Private Peasant Holdings 1996/97 (1989 E.C.)

(000 Quintal)

OROMIYA

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	50.18	2,305.06
Teff	2.98	559.01
Barley	**	543.39
Wheat	34.94	654.85
Maize	11.62	366.66
Sorghum	**	113.64
Millet	-	16.59
Oats	-	50.92
Pulses	**	446.49
Horse Beans	-	197.90
Field Peas	-	92.87
Haricot Beans	**	59.77
Chick Peas	-	37.88
Lentils	**	16.20
Vetch	-	41.87
Others	-	90.96
Neug	-	19.10
Linseed	-	51.21
Rapeseed	-	**
Ground Nuts	-	**
Sunflower	-	**
Sesame	-	.39
Fenugreek	-	**
All Crops	50.23	2,842.51

Table 4.6.1 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

EAST AND WEST WELEGA Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	5.56	296.51
Teff	**	113.13
Barley	-	**
Wheat	2.28	46.92
Maize	2.83	57.03
Sorghum	**	15.97
Millet	-	13.88
Oats	-	**
Pulses	**	44.90
Horse Beans	-	28.50
Field Peas	-	10.66
Haricot Beans	-	4.94
Chick Peas	-	**
Lentils	**	**
Vetch	-	**
Others	-	9.79
Neug	-	7.97
Linseed	-	**
Rapeseed	-	**
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	**
Fenugreek	-	**
All Crops	5.57	351.20

Table 4.6.2 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

ILUBABOR AND JIMA Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	3.48	230.88
Teff	**	92.50
Barley	-	25.69
Wheat	-	17.51
Maize	3.36	78.01
Sorghum	-	13.56
Millet	-	2.21
Oats	-	**
Pulses	-	33.35
Horse Beans	-	20.59
Field Peas	-	5.48
Haricot Beans	-	**
Chick Peas	-	**
Lentils	-	**
Vetch	-	**
Others	-	1.53
Neug	-	.77
Linseed	-	.69
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	-
Fenugreek	-	**
All Crops	3.48	265.76

Table 4.6.3 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

('000 Quintal)

NORTH AND WEST SHEWA Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	19.65	563.22
Teff	2.43	182.98
Barley	**	176.33
Wheat	16.63	164.59
Maize	**	16.94
Sorghum	-	21.05
Millet	-	-
Oats	-	1.33
Pulses	-	164.82
Horse Beans	-	75.53
Field Peas	-	28.36
Haricot Beans	-	**
Chick Peas	-	21.73
Lentils	-	11.21
Vetch	-	27.77
Others	-	18.37
Neug	-	6.07
Linseed	-	10.33
Rapeseed	-	**
Ground Nuts	-	**
Sunflower	-	**
Sesame	-	-
Fenugreek	-	**
All Crops	19.65	746.41

Table 4.6.4 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

('000 Quintal)

EAST SHEWA, ARSI, BALE AND BORENA Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	19.92	1,054.21
Teff	-	164.06
Barley	-	275.58
Wheat	15.20	417.73
Maize	**	143.75
Sorghum	-	9.22
Millet	-	**
Oats	-	43.51
Pulses	**	175.84
Horse Beans	-	61.56
Field Peas	-	45.46
Haricot Beans	**	37.64
Chick Peas	-	**
Lentils	-	**
Vetch	-	**
Others	-	50.83
Neug	-	**
Linseed	-	38.74
Rapeseed	-	**
Ground Nuts	-	-
Sunflower	-	**
Sesame	-	**
Fenugreek	-	**
All Crops	19.96	1,280.88

Table 4.6.5 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

EAST AND WEST HARERGE Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	**	160.23
Teff	-	6.34
Barley	-	17.00
Wheat	**	8.10
Maize	**	70.93
Sorghum	**	53.84
Millet	-	**
Oats	-	**
Pulses	-	27.56
Horse Beans	-	11.72
Field Peas	-	2.91
Haricot Beans	-	11.81
Chick Peas	-	**
Lentils	-	.28
Vetch	-	**
Others	-	**
Neug	-	-
Linseed	-	.24
Rapeseed	-	-
Ground Nuts	-	**
Sunflower	-	-
Sesame	-	**
Fenugreek	-	**
All Crops	**	198.22

Table 4.7 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

SOMALIE

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	1.10	31.03
Teff	-	**
Barley	**	5.87
Wheat	**	4.18
Maize	.46	9.43
Sorghum	**	11.26
Millet	-	-
Oats	-	.23
Pulses	**	.56
Horse Beans	-	**
Field Peas	-	-
Haricot Beans	-	.36
Chick Peas	**	.12
Lentils	-	**
Vetch	-	-
Others	-	**
Neug	-	-
Linseed	-	**
Rapeseed	-	-
Ground Nuts	-	**
Sunflower	-	-
Sesame	-	-
Fenugreek	-	**
All Crops	1.11	31.72

Table 4.8 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

BENSHANGUL GUMEZ

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	**	28.89
Teff	-	**
Barley	-	**
Wheat	-	**
Maize	**	6.09
Sorghum	-	9.56
Millet	-	1.91
Oats	-	**
Pulses	-	**
Horse Beans	-	**
Field Peas	-	**
Haricot Beans	-	**
Chick Peas	-	.09
Lentils	-	**
Vetch	-	-
Others	-	3.17
Neug	-	1.56
Linseed	-	**
Rapeseed	-	-
Ground Nuts	-	.94
Sunflower	-	-
Sesame	-	**
Fenugreek	-	-
All Crops	**	34.54

Table 4.9 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

(S.N.N.P.R)

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	6.47	412.05
Teff	.71	95.80
Barley	-	65.49
Wheat	2.56	133.68
Maize	3.19	90.09
Sorghum	**	23.95
Millet	-	2.98
Oats	-	**
Pulses	-	79.56
Horse Beans	-	42.46
Field Peas	-	24.03
Haricot Beans	-	12.33
Chick Peas	-	.59
Lentils	-	**
Vetch	-	**
Others	-	.30
Neug	-	-
Linseed	-	.07
Rapeseed	-	**
Ground Nuts	-	-
Sunflower	-	**
Sesame	-	-
Fenugreek	-	**
All Crops	6.47	491.91

Table 4.9.1 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

YEM, KEFICHO, MAJI, SHEKICHO AND BENCHI Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	.84	44.52
Teff	**	17.91
Barley	-	8.32
Wheat	**	**
Maize	**	9.30
Sorghum	**	4.87
Millet	-	.14
Oats	-	-
Pulses	-	14.48
Horse Beans	-	8.95
Field Peas	-	3.56
Haricot Beans	-	**
Chick Peas	-	**
Lentils	-	-
Vetch	-	-
Others	-	**
Neug	-	-
Linseed	-	**
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	-
Fenugreek	-	-
All Crops	.84	59.02

Table 4.9.2 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

NORTH AND SOUTH OMO, GARDULA AND KONSO Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	.96	58.32
Teff	**	25.52
Barley	-	6.20
Wheat	-	**
Maize	.84	15.07
Sorghum	-	10.85
Millet	-	**
Oats	-	-
Pulses	-	18.89
Horse Beans	-	7.53
Field Peas	-	6.86
Haricot Beans	-	4.28
Chick Peas	-	**
Lentils	-	**
Vetch	-	-
Others	-	.07
Neug	-	-
Linseed	-	**
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	**
Sesame	-	-
Fenugreek	-	-
All Crops	.96	77.28

Table 4.9.3 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

HADIYA, KEMBATA AND GURAGE Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	4.40	262.78
Teff	**	47.35
Barley	-	28.45
Wheat	**	124.40
Maize	2.05	52.36
Sorghum	-	7.62
Millet	-	**
Oats	-	**
Pulses	-	19.70
Horse Beans	-	13.11
Field Peas	-	**
Haricot Beans	-	**
Chick Peas	-	**
Lentils	-	**
Vetch	-	-
Others	-	.21
Neug	-	-
Linseed	-	**
Rapeseed	-	**
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	-
Fenugreek	-	**
All Crops	4.40	282.69

Table 4.9.4 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

SIDAMA, GEDIO, BURJI AND AMARO Zone

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	**	46.44
Teff	-	5.02
Barley	-	22.53
Wheat	-	4.91
Maize	**	13.36
Sorghum	-	.61
Millet	-	-
Oats	-	**
Pulses	-	26.51
Horse Beans	-	12.88
Field Peas	-	**
Haricot Beans	-	**
Chick Peas	-	**
Lentils	-	**
Vetch	-	**
Others	-	**
Neug	-	-
Linseed	-	**
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	-
Fenugreek	-	-
All Crops	**	72.96

Table 4.10 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

GAMBELA

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	.02	1.21
Teff	-	-
Barley	-	-
Wheat	-	-
Maize	**	.71
Sorghum	-	.49
Millet	-	**
Oats	-	-
Pulses	-	-
Horse Beans	-	-
Field Peas	-	-
Haricot Beans	-	-
Chick Peas	-	-
Lentils	-	-
Vetch	-	-
Others	-	.03
Neug	-	-
Linseed	-	-
Rapeseed	-	-
Ground Nuts	-	**
Sunflower	-	-
Sesame	-	.02
Fenugreek	-	-
All Crops	.02	1.24

Table 4.11 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

HARARI

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	.01	3.57
Teff	-	**
Barley	-	**
Wheat	-	.14
Maize	.01	1.10
Sorghum	-	2.27
Millet	-	-
Oats	-	-
Pulses	-	.02
Horse Beans	-	-
Field Peas	-	-
Haricot Beans	-	.02
Chick Peas	-	-
Lentils	-	-
Vetch	-	-
Others	-	1.07
Neug	-	-
Linseed	-	-
Rapeseed	-	-
Ground Nuts	-	1.07
Sunflower	-	-
Sesame	-	-
Fenugreek	-	-
All Crops	.01	4.66

Table 4.12 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

ADDIS ABABA

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	.12	8.49
Teff	.03	4.03
Barley	-	.32
Wheat	.09	4.07
Maize	-	.01
Sorghum	-	.05
Millet	-	-
Oats	-	**
Pulses	-	2.78
Horse Beans	-	.27
Field Peas	-	.05
Haricot Beans	-	-
Chick Peas	-	1.09
Lentils	-	.45
Vetch	-	.92
Others	-	.07
Neug	-	-
Linseed	-	**
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	-
Fenugreek	-	.06
All Crops	.12	11.34

Table 4.13 Estimates of Quantity of Improved Seed and Local Seed
by type of Crops for Private Peasant Holdings
1996/97 (1989 E.C.)

'(000 Quintal)

DIRE DAWA

CROP TYPE	QUANTITY OF	
	IMPROVED SEED	LOCAL SEED
Cereals	.02	1.94
Teff	-	-
Barley	-	-
Wheat	-	**
Maize	**	.07
Sorghum	.01	1.86
Millet	-	-
Oats	-	-
Pulses	**	.03
Horse Beans	-	-
Field Peas	-	-
Haricot Beans	**	.03
Chick Peas	-	-
Lentils	-	-
Vetch	-	-
Others	-	-
Neug	-	-
Linseed	-	-
Rapeseed	-	-
Ground Nuts	-	-
Sunflower	-	-
Sesame	-	-
Fenugreek	-	-
All Crops	.03	1.97

5. Number of Holders Who Applied Agricultural Inputs in their fields by their Educational Attainment

According to the survey result, there are about 9.09 million holders at national level. Most of these holders (i.e. 74.97%) are illiterates and only 0.16% have attended higher education. See Table 4.1 for further information.

Out of the total holders, 1.14%, 1.21%, 3.99% and 31.68% have applied improved seed, irrigation, pesticide and fertilizer during the 1996/97 agriculture year respectively.

When one looks at the educational attainment of those holders who applied improved seed, irrigation, pesticide and fertilizer, 62.47%, 73.62%, 71.27% and 71.21% of them are illiterates in that order. For details refer to Table 5.1.

Table e. Summary of Number of Holders Who Applied Agricultural Inputs

Type of Practice	Number of holders applied
Improved Seed	103.64
Irrigation	109.95
Pesticide	362.83
Fertilizer	2,878.36

TABLE 5.1 NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS
BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NATIONAL

NUMBER IN THOUSANDS ('000)

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	6,811.39	74.97	64.74	62.47	80.94	73.62	260.40	71.77	2,049.62	71.21
GRADES 1 - 3	1,181.30	13.00	16.66	16.07	18.19	16.54	36.77	10.13	396.15	13.76
GRADES 4 - 6	675.94	7.44	14.26	13.76	8.80	8.00	40.95	11.29	262.49	9.12
GRADES 7 - 8	255.49	2.81	5.43	5.24	1.95	1.77	16.04	4.42	99.24	3.45
GRADES 9 - 11	100.68	1.11	2.06	1.99	**	**	7.53	2.08	47.01	1.63
GRADE 12 COMPLETE	45.68	.50	.49	.47	**	**	1.14	.31	20.54	.71
HIGHER EDUCATION	14.72	.16	.01	.01	-	-	-	-	3.31	.11
NOT STATED	.70	.01	-	-	-	-	-	-	-	-
TOTAL	9,085.91	100.00	103.64	100.00	109.95	100.00	362.83	100.00	2,878.36	100.00

TABLE 5.2
NUMBER OF HOLDERS BY EDUCATIONAL ATTAINMENT AND REGION
1996/97(1989 E.C.)

NUMBER IN THOUSANDS ('000)

REGION	E D U C A T I O N A L A T T A I N M E N T I N G R A D E S								TOTAL HOLDERS
	ILLITERATE	1 - 3	4 - 6	7 - 8	9 - 11	12 COMPLETE	HIGHER EDUCATION	EDUCATION NOT STATED	
TIGRAY	504.72	90.68	17.15	2.59	.65	-	-	-	615 .78
AFAR	30.11	4.88	1.75	.09	-	-	-	-	36.74
AMHARA	2,129.72	429.45	95.84	16.78	7.91	4.64	1.58	-	2,685.90
OROMIYA	2,510.51	415.56	311.31	137.20	55.31	18.23	6.32	-	3,454.43
SOMALIE	75.79	7.16	1.09	.81	-	-	.19	-	85.04
BENSHANGUL-GUMUZ	62.17	11.22	7.54	1.84	1.32	1.09	.15	-	85.33
S.N.N.P.R.	1,467.11	217.49	237.88	95.18	35.10	21.53	6.47	.70	2,081.45
GAMBELA	6.35	1.67	1.64	.44	.19	.03	.01	-	10.33
HARARI	9.29	1.34	1.03	.23	.06	.08	.02	-	12.05
ADDIS ABABA	4.00	.56	.32	.22	.12	.07	-	-	5.27
DIRE DAWA	11.74	1.30	.39	.11	.04	.02	-	-	13.58
TOTAL	6,811.39	1,181.30	675.94	255.49	100.68	45.68	14.72	.70	9,085.91

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.3 TIGRAY

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	504.72	81.96	6.96	71.46	6.79	66.76	34.66	95.61	129.25	79.98
GRADES 1 - 3	90.68	14.73	**	**	3.38	33.24	**	**	23.32	14.43
GRADES 4 - 6	17.15	2.79	**	**	-	-	**	**	7.21	4.46
GRADES 7 - 8	**	**	**	**	-	-	-	-	**	**
GRADES 9 - 11	**	**	-	-	-	-	-	-	-	-
GRADE 12 COMPLETE	-	-	-	-	-	-	-	-	-	-
HIGHER EDUCATION	-	-	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	615.78	100.00	9.74	100.00	10.17	100.00	**	**	161.60	100.00

TABLE 5.4 AFAR

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	30.01	81.68	-	-	**	**	**	**	**	**
GRADES 1 - 3	4.88	13.28	-	-	-	-	**	**	-	-
GRADES 4 - 6	1.75	4.76	-	-	-	-	-	-	**	**
GRADES 7 - 8	.10	.27	-	-	-	-	-	-	-	-
GRADES 9 - 11	-	-	-	-	-	-	-	-	-	-
GRADE 12 COMPLETE	-	-	-	-	-	-	-	-	-	-
HIGHER EDUCATION	-	-	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	36.74	100.00	-	-	**	**	**	**	**	**

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.5 AMHARA

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	2,129.72	79.29	13.88	58.69	33.87	85.92	29.08	87.35	503.29	74.98
GRADES 1 - 3	429.45	15.99	6.88	27.09	4.10	10.40	**	**	130.15	19.39
GRADES 4 - 6	95.84	3.57	1.75	7.40	1.45	3.68	2.85	8.56	31.86	4.75
GRADES 7 - 8	16.78	.62	1.14	4.82	-	-	-	-	4.26	.63
GRADES 9 - 11	7.91	.29	-	-	-	-	-	-	**	**
GRADE 12 COMPLETE	4.64	.17	-	-	-	-	-	-	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	2,685.90	100.00	23.65	100.00	39.42	100.00	33.29	100.00	671.27	100.00

TABLE 5.5.1 NORTH AND SOUTH GONDAR Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	583.53	79.49	**	**	-	-	**	**	118.36	74.67
GRADES 1 - 3	137.26	18.70	5.15	47.55	-	-	**	**	36.35	22.93
GRADES 4 - 6	10.34	1.41	**	**	-	-	-	-	**	**
GRADES 7 - 8	**	**	-	-	-	-	-	-	-	-
GRADES 9 - 11	**	**	-	-	-	-	-	-	-	-
GRADE 12 COMPLETE	**	**	-	-	-	-	-	-	-	-
HIGHER EDUCATION	-	-	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	734.13	100.00	10.83	100.00	-	-	**	**	158.51	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.5.2 EAST, WEST GOJAM AND AGEWAWI Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	592.00	75.07	4.33	100.00	**	**	3.74	100.00	254.15	74.12
GRADES 1 - 3	155.77	19.75	-	-	**	**	-	-	73.62	21.47
GRADES 4 - 6	30.71	3.89	-	-	-	-	-	-	12.04	3.51
GRADES 7 - 8	4.14	.52	-	-	-	-	-	-	**	**
GRADES 9 - 11	**	**	-	-	-	-	-	-	**	**
GRADE 12 COMPLETE	**	**	-	-	-	-	-	-	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	788.58	100.00	4.33	100.00	**	**	3.74	100.00	342.90	100.00

TABLE 5.5.3 NORTH WOLO AND WAGHAMRA Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	282.72	84.44	1.39	31.17	**	**	8.19	81.49	13.20	66.37
GRADES 1 - 3	42.34	12.65	**	**	**	**	**	**	3.97	19.96
GRADES 4 - 6	6.33	1.89	**	**	-	-	**	**	2.39	12.02
GRADES 7 - 8	**	**	**	**	-	-	-	-	**	**
GRADES 9 - 11	**	**	-	-	-	-	-	-	-	-
GRADE 12 COMPLETE	**	**	-	-	-	-	-	-	-	-
HIGHER EDUCATION	-	-	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	334.83	100.00	4.46	100.00	10.08	100.00	10.05	100.00	19.89	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.5.4 SOUTH WOLO, OROMIA AND NORTH SHEWA Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	671.47	81.06	**	**	25.55	94.66	**	**	117.59	78.40
GRADES 1 - 3	94.08	11.36	-	-	-	-	-	-	16.21	10.81
GRADES 4 - 6	48.45	5.85	-	-	**	**	**	**	13.65	9.10
GRADES 7 - 8	10.96	1.32	**	**	-	-	-	-	**	**
GRADES 9 - 11	3.40	.41	-	-	-	-	-	-	-	-
GRADE 12 COMPLETE	-	-	-	-	-	-	-	-	-	-
HIGHER EDUCATION	-	-	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	828.37	100.00	**	**	26.99	100.00	18.04	100.00	149.98	100.00

TABLE 5.6 OROMIYA

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	2,510.51	72.68	24.74	59.40	19.27	63.85	132.34	66.34	771.57	69.07
GRADES 1 - 3	415.56	12.03	4.98	11.96	8.65	28.66	26.60	13.33	150.46	13.47
GRADES 4 - 6	311.31	9.01	7.22	17.33	2.25	7.46	24.86	12.46	114.27	10.23
GRADES 7 - 8	137.20	3.97	2.80	6.72	-	-	10.49	5.26	49.03	4.39
GRADES 9 - 11	55.31	1.60	1.44	3.46	-	-	4.74	2.38	23.86	2.14
GRADE 12 COMPLETE	18.23	.53	**	**	-	-	.45	.23	6.54	.59
HIGHER EDUCATION	6.32	.18	-	-	-	-	-	-	1.37	.12
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	3,454.43	100.00	41.65	100.00	30.18	100.00	199.48	100.00	1,117.10	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.6.1 EAST AND WEST WELEGA Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	340.98	64.85	4.94	45.95	**	**	**	**	88.29	59.19
GRADES 1 - 3	66.87	12.72	1.43	13.30	**	**	-	-	22.88	15.34
GRADES 4 - 6	65.56	12.47	2.01	18.70	**	**	**	**	21.68	14.53
GRADES 7 - 8	28.32	5.39	**	**	-	-	**	**	7.52	5.04
GRADES 9 - 11	15.01	2.85	**	**	-	-	-	-	6.29	4.22
GRADE 12 COMPLETE	7.99	1.52	**	**	-	-	-	-	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	525.76	100.00	10.75	100.00	**	**	**	**	149.16	100.00

TABLE 5.6.2 ILUBABOR AND JIMA Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	422.07	76.10	3.55	47.27	-	-	22.89	81.29	86.82	75.29
GRADES 1 - 3	71.57	12.90	**	**	**	**	**	**	15.19	13.17
GRADES 4 - 6	40.66	7.33	**	**	-	-	**	**	10.20	8.84
GRADES 7 - 8	14.11	2.54	-	-	-	-	**	**	2.64	2.29
GRADES 9 - 11	3.55	.64	-	-	-	-	-	-	**	**
GRADE 12 COMPLETE	2.17	.39	-	-	-	-	-	-	-	-
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	554.65	100.00	7.51	100.00	**	**	28.16	100.00	115.32	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.6.3 NORTH AND WEST SHEWA Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	530.81	78.27	**	**	**	**	54.24	66.58	211.94	75.35
GRADES 1 - 3	67.95	10.02	-	-	**	**	12.13	14.89	29.76	10.58
GRADES 4 - 6	46.73	6.89	**	**	**	**	10.49	12.88	22.31	7.93
GRADES 7 - 8	19.22	2.83	**	**	-	-	2.95	3.62	8.75	3.11
GRADES 9 - 11	8.36	1.23	-	-	-	-	**	**	5.17	1.84
GRADE 12 COMPLETE	3.77	.56	-	-	-	-	**	**	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	**	**
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	678.19	100.00	5.47	100.00	**	**	81.47	100.00	281.27	100.00

TABLE 5.6.4 EAST SHEWA, ARSI, BALE AND BORENA Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	731.92	68.33	10.38	70.23	**	**	38.48	54.55	274.88	64.74
GRADES 1 - 3	130.19	12.15	**	**	-	-	10.12	14.35	64.42	15.17
GRADES 4 - 6	121.17	11.31	**	**	**	**	12.84	18.20	49.01	11.54
GRADES 7 - 8	59.29	5.54	**	**	-	-	**	**	24.73	5.82
GRADES 9 - 11	22.10	2.06	-	-	-	-	**	**	9.46	2.23
GRADE 12 COMPLETE	4.30	.40	-	-	-	-	-	-	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	1,071.17	100.00	14.78	100.00	**	**	70.54	100.00	424.56	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.6.5 EAST AND WEST HARERGE Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	484.73	77.60	**	**	15.01	70.21	**	**	109.65	74.70
GRADES 1 - 3	78.98	12.64	-	-	6.37	29.79	**	**	18.22	12.41
GRADES 4 - 6	37.19	5.95	**	**	-	-	-	-	11.08	7.55
GRADES 7 - 8	16.27	2.60	-	-	-	-	**	**	5.39	3.67
GRADES 9 - 11	6.29	1.01	-	-	-	-	-	-	2.46	1.68
GRADE 12 COMPLETE	-	-	-	-	-	-	-	-	-	-
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	624.66	100.00	**	**	21.38	100.00	**	**	146.79	100.00

TABLE 5.7 SOMALIE

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	75.79	89.12	8.62	91.22	**	**	**	**	**	**
GRADES 1 - 3	7.16	8.42	.70	7.41	-	-	**	**	**	**
GRADES 4 - 6	1.09	1.28	**	**	**	**	-	-	**	**
GRADES 7 - 8	**	**	**	**	-	-	-	-	-	-
GRADES 9 - 11	-	-	-	-	-	-	-	-	-	-
GRADE 12 COMPLETE	-	-	-	-	-	-	-	-	-	-
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	85.04	100.00	9.45	100.00	**	**	**	**	**	**

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.8 BENSHANGUL GUMEZ

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	62.17	72.86	**	**	**	**	**	**	7.42	75.79
GRADES 1 - 3	11.22	13.15	-	-	-	-	-	-	.92	9.40
GRADES 4 - 6	7.54	8.84	**	**	-	-	-	-	**	**
GRADES 7 - 8	1.84	2.16	-	-	-	-	-	-	**	**
GRADES 9 - 11	1.32	1.55	-	-	-	-	-	-	**	**
GRADE 12 COMPLETE	1.09	1.28	-	-	-	-	-	-	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	85.33	100.00	**	**	**	**	**	**	9.79	100.00

TABLE 5.9 (S.N.N.P.R)

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	1,467.11	70.48	9.95	54.76	**	**	62.07	68.76	624.02	69.32
GRADES 1 - 3	217.49	10.45	2.68	14.75	**	**	7.19	7.96	89.30	9.92
GRADES 4 - 6	237.88	11.43	4.38	24.11	4.94	19.35	12.03	13.33	106.68	11.85
GRADES 7 - 8	95.18	4.57	.58	3.19	1.91	7.48	5.53	6.13	43.50	4.83
GRADES 9 - 11	35.10	1.69	.58	3.19	-	-	2.76	3.06	22.14	2.46
GRADE 12 COMPLETE	21.53	1.03	-	-	-	-	**	**	12.63	1.40
HIGHER EDUCATION	6.47	.31	-	-	-	-	-	-	1.94	.22
NOT STATED	.70	.03	-	-	-	-	-	-	-	-
TOTAL	2,081.45	100.00	18.17	100.00	25.53	100.00	90.27	100.00	900.21	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.9.1 YEM, KEFICHO, MAJI, SHEKICHO AND BENCHI Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	185.28	74.07	**	**	**	**	1.49	66.52	16.57	80.71
GRADES 1 - 3	22.96	9.18	-	-	-	-	**	**	**	**
GRADES 4 - 6	28.85	11.53	**	**	-	-	**	**	2.22	10.81
GRADES 7 - 8	9.02	3.61	-	-	-	-	-	-	**	**
GRADES 9 - 11	1.86	.74	-	-	-	-	-	-	-	-
GRADE 12 COMPLETE	**	**	-	-	-	-	-	-	-	-
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	250.14	100.00	2.01	100.00	**	**	2.24	100.00	20.53	100.00

TABLE 5.9.2 NORTH AND SOUTH OMO, GARDULA AND KONSO Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	473.84	74.91	**	**	**	**	**	**	124.82	70.55
GRADES 1 - 3	59.94	9.48	-	-	-	-	**	**	18.70	10.57
GRADES 4 - 6	60.53	9.57	-	-	**	**	-	-	18.13	10.25
GRADES 7 - 8	22.57	3.57	-	-	**	**	-	-	7.68	4.34
GRADES 9 - 11	9.95	1.57	-	-	-	-	-	-	5.07	2.87
GRADE 12 COMPLETE	3.74	.59	-	-	-	-	-	-	2.53	1.43
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	632.56	100.00	**	**	**	**	**	**	176.92	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

TABLE 5.9.3 HADIYA, KEMBATA AND GURAGE Zone

NUMBER IN THOUSANDS ('000)

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	444.68	75.21	2.82	58.14	**	**	50.00	68.65	330.18	74.31
GRADES 1 - 3	44.86	7.59	**	**	-	-	5.33	7.32	33.34	7.50
GRADES 4 - 6	52.14	8.82	-	-	-	-	10.67	14.65	42.71	9.61
GRADES 7 - 8	28.43	4.81	-	-	-	-	3.38	4.64	18.82	4.24
GRADES 9 - 11	11.64	1.97	-	-	-	-	2.76	3.79	11.64	2.62
GRADE 12 COMPLETE	7.60	1.29	-	-	-	-	**	**	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	**	**
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	591.26	100.00	4.85	100.00	**	**	72.83	100.00	444.32	100.00

TABLE 5.9.4- SIDAMA, GEDIO, BURJI AND AMARO Zone

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	363.29	59.80	**	**	**	**	6.04	61.13	152.45	58.99
GRADES 1 - 3	89.73	14.77	**	**	**	**	**	**	36.04	13.95
GRADES 4 - 6	96.35	15.86	**	**	**	**	**	**	43.62	16.88
GRADES 7 - 8	35.17	5.79	**	**	**	**	**	**	16.47	6.37
GRADES 9 - 11	11.65	1.92	**	**	-	-	-	-	5.44	2.11
GRADE 12 COMPLETE	8.76	1.44	-	-	-	-	-	-	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	**	**
NOT STATED	**	**	-	-	-	-	-	-	-	-
TOTAL	607.48	100.00	7.61	100.00	**	**	9.88	100.00	258.43	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.10 GAMBELA

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	6.35	61.47	.13	41.94	-	-	**	**	**	**
GRADES 1 - 3	1.67	16.17	**	**	-	-	-	-	-	-
GRADES 4 - 6	1.64	15.88	**	**	-	-	**	**	-	-
GRADES 7 - 8	.44	4.26	**	**	-	-	-	-	**	**
GRADES 9 - 11	.19	1.84	**	**	-	-	-	-	-	-
GRADE 12 COMPLETE	**	**	**	**	-	-	-	-	-	-
HIGHER EDUCATION	**	**	**	**	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	10.33	100.00	.31	100.00	-	-	**	**	**	**

TABLE 5.11 HARARI

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	9.29	77.10	.10	83.33	.48	69.57	.72	58.54	4.59	74.27
GRADES 1 - 3	1.34	11.12	**	**	.08	11.59	.22	17.89	.72	11.65
GRADES 4 - 6	1.03	8.55	-	-	**	**	.26	21.14	.62	10.03
GRADES 7 - 8	.23	1.91	-	-	**	**	**	**	.14	2.27
GRADES 9 - 11	**	**	-	-	**	**	**	**	**	**
GRADE 12 COMPLETE	.08	.66	-	-	**	**	-	-	**	**
HIGHER EDUCATION	**	**	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	12.05	100.00	.12	100.00	.69	100.00	1.23	100.00	6.18	100.00

NUMBER OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT FOR PRIVATE PEASANT HOLDINGS
1996/97 (1989 E.C.)

NUMBER IN THOUSANDS ('000)

TABLE 5.12 ADDIS ABABA

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	4.00	75.61	.08	72.73	**	**	**	**	3.18	75.89
GRADES 1 - 3	.56	10.59	**	**	-	-	.04	28.57	.45	10.74
GRADES 4 - 6	.32	6.05	**	**	-	-	.03	21.43	.30	7.16
GRADES 7 - 8	.22	4.16	-	-	**	**	-	-	.14	3.34
GRADES 9 - 11	.12	2.27	-	-	-	-	-	-	.07	1.67
GRADE 12 COMPLETE	.07	1.32	**	**	-	-	-	-	.06	1.43
HIGHER EDUCATION	-	-	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	5.29	100.00	.11	100.00	**	**	.14	100.00	4.19	100.00

TABLE 5.13 DIRE DAWA

EDUCATIONAL STATUS OF HOLDERS	NUMBER OF HOLDERS WHO APPLIED									
	TOTAL	PERCENT	IMPROVED SEED	PERCENT	IRRIGATION	PERCENT	PESTICIDE	PERCENT	FERTILIZER	PERCENT
ILLITERATE	11.74	86.45	.14	73.68	1.07	84.92	.49	63.64	1.79	69.38
GRADES 1 - 3	1.30	9.57	-	-	.11	8.73	**	**	.51	19.77
GRADES 4 - 6	.39	2.87	**	**	.08	6.35	**	**	.22	8.53
GRADES 7 - 8	.11	.81	-	-	-	-	-	-	**	**
GRADES 9 - 11	**	**	**	**	-	-	**	**	**	**
GRADE 12 COMPLETE	**	**	-	-	-	-	-	-	-	-
HIGHER EDUCATION	-	-	-	-	-	-	-	-	-	-
NOT STATED	-	-	-	-	-	-	-	-	-	-
TOTAL	13.58	100.00	.19	100.00	1.26	100.00	.77	100.00	2.58	100.00

APPENDIX I

ESTIMATION PROCEDURE OF TOTAL & SAMPLING ERROR

APPENDIX I

ESTIMATION PROCEDURES OF TOTAL AND SAMPLING ERRORS.

1. Estimating Area

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.

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

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_{hi} 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.

$\hat{A}_h$ 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

$\hat{Q}_h$ 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 the 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 simplify the estimation procedure. 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 Variation

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 Characteristic and Sampling variance are obtained by aggregating the respective stratum totals

APPENDIX II

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR ESTIMATES

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Table 1.1

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

NATIONAL

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	6688.55	173.60	2.60	152.52	15.46	10.14	39.22	13.29	33.89	604.04	61.47	10.18	2501.97	141.53	5.66
Teff	2167.77	106.92	4.93	37.24	7.34	19.70	4.79	1.07	22.24	318.55	44.47	13.96	1175.65	98.45	8.37
Barley	697.67	61.71	8.84	1.01	0.46	45.45	**	**	**	34.64	7.77	22.44	207.60	41.15	19.82
Wheat	772.23	65.93	8.54	50.29	7.46	14.84	0.80	0.31	39.22	158.83	29.88	18.81	443.69	56.74	12.79
Maize	1316.87	72.89	5.53	60.34	10.74	17.80	13.69	6.10	44.52	23.45	6.05	25.79	445.52	38.25	8.58
Sorghum	1399.95	87.18	6.23	3.64	1.50	41.18	18.97	9.07	47.81	62.78	19.97	31.82	107.98	15.62	14.46
Millet	290.66	36.91	12.70	—	—	—	**	**	**	2.93	1.25	42.58	102.39	25.34	24.74
Oats	43.41	12.47	28.73	—	—	—	**	**	**	**	**	**	19.15	9.06	47.30
PULSES	905.34	45.48	5.02	**	**	**	**	**	**	8.79	3.55	40.44	78.11	12.17	15.58
Horsebeans	329.31	22.46	6.82	**	**	**	**	**	**	2.11	0.68	32.45	41.45	10.82	26.11
Chickpeas	158.11	15.64	9.89	**	**	**	**	**	**	5.28	3.29	62.37	13.72	2.95	21.52
Haricot Beans	112.81	17.68	15.67	**	**	**	**	**	**	**	**	**	11.99	2.35	19.57
Field Peas	147.90	20.27	13.71	**	**	**	**	**	**	**	**	**	4.88	1.91	39.11
Lentils	52.81	7.20	13.64	**	**	**	**	**	**	**	**	**	3.65	1.07	29.30
Vetch	104.41	17.98	17.22	**	**	**	**	**	**	**	**	**	2.41	0.92	38.20
OILSEEDS	461.20	42.73	9.26	**	**	**	**	**	**	**	**	**	33.05	10.00	30.26
Neug	250.52	28.86	11.52	—	—	—	—	—	—	**	**	**	9.37	2.98	31.84
Linseed	148.17	26.67	18.00	—	—	—	—	—	—	**	**	**	6.03	2.43	40.35
Rapeseed	21.40	8.76	40.92	**	**	**	**	**	**	**	**	**	**	**	**
Groundnuts	17.43	7.62	43.74	**	**	**	**	**	**	**	**	**	**	**	**
Sunflower	5.17	2.26	43.72	—	—	—	**	**	**	**	**	**	**	**	**
Sesame	18.50	5.74	31.02	—	—	—	**	**	**	**	**	**	**	**	**
Castore Bean	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Others	178.52	14.64	8.20	**	**	**	3.66	0.90	24.59	0.78	0.26	32.95	57.56	8.98	15.61
Fenugreek	17.26	5.85	33.89	—	—	—	—	—	—	—	—	—	0.86	0.30	34.28
Spices	53.98	9.39	17.39	—	—	—	0.54	0.25	46.22	**	**	**	21.99	7.47	33.97
Potatoes	33.36	6.95	20.83	—	—	—	**	**	**	**	**	**	13.94	4.08	29.23
Other Temporary	73.92	5.99	8.10	**	**	**	2.34	0.63	26.84	0.38	0.17	44.96	20.77	3.08	14.82
ALL TEMPORARY	8233.61	204.88	2.49	153.52	15.60	10.16	46.76	13.84	29.59	616.33	63.32	10.27	2670.69	151.27	5.66
Chat	81.23	6.39	7.86	—	—	—	4.53	1.17	25.82	2.00	0.59	29.39	25.14	4.32	17.18
Coffee	191.63	19.66	10.26	11.74	2.91	24.75	6.11	1.72	28.22	**	**	**	27.92	4.32	15.47
Enset	260.00	33.23	12.78	—	—	—	**	**	**	**	**	**	112.98	14.93	13.21
Cotton	16.21	6.66	41.10	—	—	—	**	**	**	**	**	**	0.30	0.13	42.22
Tobacco	2.09	0.70	33.64	—	—	—	**	**	**	—	—	—	0.31	0.10	32.64
Fruits	17.74	3.36	18.93	**	**	**	**	**	**	**	**	**	2.74	0.57	20.79
Other Permanent	22.86	2.90	12.69	**	**	**	4.61	1.54	33.37	**	**	**	4.79	0.65	13.56
TOTAL PERMANENT	591.77	42.07	7.11	11.86	2.91	24.55	21.46	4.58	21.32	7.82	3.01	38.55	174.18	17.46	10.03
ALL CROPS	8825.38	204.87	2.32	165.38	15.86	9.59	68.22	14.99	21.97	624.15	63.39	10.16	2844.87	151.73	5.33

Table 1.2

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

TIGRAY

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	448.76	41.18	9.18	5.06	1.30	25.72	**	**	**	42.75	20.53	48.02	111.05	17.05	15.36
Teff	99.50	12.94	13.01	2.72	0.92	33.91	1.94	0.68	34.95	3.19	1.56	48.78	29.73	8.53	28.70
Barley	55.54	11.84	21.33	**	**	**	—	—	—	**	**	**	14.87	4.37	29.37
Wheat	55.36	12.93	23.35	**	**	**	**	**	**	**	**	**	15.69	5.18	33.04
Maize	41.74	8.70	20.85	**	**	**	**	**	**	**	**	**	20.08	5.91	29.43
Sorghum	141.19	25.32	17.94	—	—	—	**	**	**	**	**	**	25.26	8.55	33.84
Millet	55.43	13.94	25.14	—	—	—	**	**	**	**	**	**	5.42	1.96	36.17
Oats	0.00	**	**	—	—	—	—	—	—	—	—	—	—	—	—
PULSES	27.85	5.75	20.65	**	**	**	**	**	**	**	**	**	2.28	1.06	46.40
Horsebeans	10.11	3.06	30.27	—	—	—	**	**	**	—	—	—	**	**	**
Chickpeas	2.40	0.81	33.70	—	—	—	**	**	**	—	—	—	**	**	**
Haricot Beans	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Field Peas	4.62	1.83	39.70	—	—	—	—	—	—	**	**	**	**	**	**
Lentils	3.89	1.86	47.86	—	—	—	—	—	—	—	—	—	**	**	**
Vetch	**	**	**	**	**	**	—	—	—	**	**	**	—	—	—
OILSEEDS	4.88	2.15	44.12	—	—	—	—	—	—	**	**	**	**	**	**
Neug	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	2.19	0.88	40.29	—	—	—	—	—	—	—	—	—	**	**	**
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Seasame	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	**	**	**	—	—	—	**	**	**	**	**	**	—	—	—
Fenugreek	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Spices	**	**	**	—	—	—	**	**	**	**	**	**	—	—	—
Potatoes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Temporary	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
ALL TEMPORARY	483.29	43.32	8.96	5.15	1.33	25.82	**	**	**	43.20	20.54	47.53	113.44	17.40	15.34
Chat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coffee	**	**	**	—	—	—	**	**	**	—	—	—	—	—	—
Enset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cotton	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tobacco	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fruits	**	**	**	—	—	—	**	**	**	—	—	—	—	—	—
Other Permanent	**	**	**	—	—	—	**	**	**	**	**	**	**	**	**
TOTAL PERMANENT	**	**	**	—	—	—	**	**	**	**	**	**	**	**	**
ALL CROPS	483.85	43.25	8.94	5.15	1.33	25.82	**	**	**	43.21	20.54	47.52	113.56	17.41	15.33

Table 1.3.

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area, their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

AFAR

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	29.37	14.27	48.58	—	—	—	**	**	**	**	**	**	**	**	**
Teff	**	**	**	—	—	—	**	**	**	**	**	**	**	**	**
Barley	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Wheat	**	**	**	—	—	—	**	**	**	—	—	—	**	**	**
Maize	1.47	0.54	36.74	—	—	—	**	**	**	—	—	—	**	**	**
Sorghum	19.86	9.06	45.63	—	—	—	—	—	—	**	**	**	**	**	**
Millet	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oats	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PULSES	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
Horsebeans	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Chickpeas	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Haricot Beans	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Field Peas	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
Lentils	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Vetch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
OILSEEDS	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Neug	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Seasame	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Fenugreek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spices	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Potatoes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Temporary	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
ALL TEMPORARY	29.98	14.50	48.37	—	—	—	**	**	**	**	**	**	**	**	**
Chat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coffee	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Enset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cotton	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
Tobacco	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fruits	0.04	0.02	45.31	—	—	—	**	**	**	**	**	**	—	—	—
Other Permanent	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
TOTAL PERMANENT	**	**	**	—	—	—	0.04	0.02	49.48	**	**	**	**	**	**
ALL CROPS	30.32	14.55	47.98	—	—	—	**	**	**	**	**	**	**	**	**

Table 1.4

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

AMHARA

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	2487.41	117.88	4.74	50.65	9.21	18.19	**	**	**	40.18	8.87	22.07	745.14	87.23	11.71
Teff	903.19	63.18	7.00	22.64	6.64	29.31	1.87	0.72	38.44	14.39	3.63	25.21	408.07	53.45	13.10
Barley	244.01	27.66	11.34	—	—	—	**	**	**	**	**	**	29.19	7.28	24.93
Wheat	212.02	30.06	14.18	19.10	4.92	25.75	**	**	**	3.06	1.31	42.64	68.64	17.44	25.41
Maize	316.25	27.21	8.60	8.42	2.86	33.90	**	**	**	4.05	1.91	47.26	143.80	23.36	16.24
Sorghum	626.22	66.37	10.60	**	**	**	**	**	**	17.71	6.40	36.15	15.32	4.29	27.97
Millet	176.49	32.85	18.61	—	—	—	—	—	—	**	**	**	79.78	24.74	31.01
Oats	9.23	2.49	27.00	—	—	—	**	**	**	—	—	—	**	**	**
PULSES	386.08	27.24	7.05	**	**	**	**	**	**	**	**	**	17.01	4.64	27.30
Horsebeans	129.77	13.60	10.48	—	—	—	—	**	**	**	**	**	8.39	2.60	30.95
Chickpeas	55.95	7.37	13.18	—	—	—	—	—	—	**	**	**	4.64	1.76	37.97
Haricot Beans	20.21	8.33	41.23	—	—	—	—	—	—	—	—	—	0.48	0.34	71.24
Field Peas	98.83	15.79	15.98	—	—	—	**	**	**	—	—	—	**	**	**
Lentils	28.70	5.17	18.02	—	—	—	**	**	**	**	**	**	**	**	**
Vetch	52.60	9.53	18.11	**	**	**	**	**	**	—	—	—	**	**	**
OILSEEDS	201.62	26.69	13.24	**	**	**	**	**	**	**	**	**	17.80	6.54	36.71
Neug	133.85	21.36	15.96	—	—	—	—	—	—	**	**	**	7.20	2.80	38.87
Linseed	44.83	11.18	24.93	—	—	—	—	—	—	**	**	**	**	**	**
Rapeseed	9.01	4.21	46.74	**	**	**	**	**	**	—	—	—	**	**	**
Groundnuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	4.74	2.25	47.56	—	—	—	—	—	—	**	**	**	**	**	**
Seasame	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Castore Bean	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Others	52.22	7.85	15.03	**	**	**	**	**	**	**	**	**	10.49	2.43	23.13
Fenugreek	6.13	1.64	26.71	—	—	—	—	—	—	—	—	—	**	**	**
Spices	19.84	4.94	24.88	—	—	—	0.14	0.07	49.54	**	**	**	4.24	0.93	21.91
Potatoes	17.35	5.14	29.65	—	—	—	**	**	**	**	**	**	5.16	2.28	44.15
Other Temporary	8.90	2.37	26.63	**	**	**	0.22	0.09	42.85	—	—	—	0.95	0.40	42.53
ALL TEMPORARY	3127.32	139.48	4.46	50.88	9.24	18.15	17.33	8.19	47.25	42.70	9.31	21.80	790.44	92.94	11.76
Chat	**	**	**	—	—	—	**	**	**	—	—	—	**	**	**
Coffee	7.09	2.24	31.54	**	**	**	3.22	1.36	42.43	**	**	**	2.11	0.88	41.85
Enset	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Cotton	**	**	**	—	—	—	—	—	—	—	—	—	0.27	0.12	46.06
Tobacco	**	**	**	—	—	—	—	—	—	—	—	—	—	0.00	100.00
Fruits	0.73	0.28	37.80	—	—	—	0.39	0.18	47.13	—	—	—	0.23	0.11	49.22
Other Permanent	9.15	1.89	20.67	—	—	—	2.04	0.87	42.80	**	**	**	1.62	0.39	24.32
TOTAL PERMANENT	27.49	5.76	20.94	**	**	**	6.19	1.97	31.88	**	**	**	6.82	2.28	33.41
ALL CROPS	3154.81	139.02	4.41	50.92	9.24	18.14	23.52	8.49	36.11	42.90	9.37	21.84	797.26	93.12	11.68

Table 1.5

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

OROMIYA

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	2986.93	110.93	3.71	78.82	11.93	15.13	**	**	**	417.60	54.27	13.00	1373.24	104.96	7.64
Teff	952.67	82.21	8.63	9.68	2.86	29.59	0.93	0.39	42.12	249.46	42.91	17.20	634.27	80.14	12.64
Barley	343.64	52.97	15.41	**	**	**	**	**	**	30.07	7.62	25.32	143.87	39.86	27.71
Wheat	431.75	55.71	12.90	27.12	5.41	19.96	**	**	**	111.82	27.55	24.64	301.99	52.19	17.28
Maize	751.84	63.01	8.38	40.94	10.15	24.79	**	**	**	13.79	4.86	35.27	214.00	25.47	11.90
Sorghum	426.42	46.62	10.93	**	**	**	**	**	**	**	**	**	45.60	9.81	21.51
Millet	46.70	8.90	19.06	—	—	—	—	—	—	**	**	**	14.75	4.94	33.47
Oats	33.90	12.22	36.04	—	—	—	—	—	—	**	**	**	18.77	9.05	48.23
PULSES	395.50	34.72	8.78	**	**	**	**	**	**	**	**	**	40.33	10.69	26.50
Horsebeans	148.26	16.62	11.21	**	**	**	—	—	—	1.38	0.58	41.66	23.64	10.26	43.39
Chickpeas	73.82	12.84	17.40	—	—	—	**	**	**	**	**	**	5.49	1.69	30.74
Haricot Beans	68.88	15.09	21.90	**	**	**	**	**	**	**	**	**	5.11	1.56	30.57
Field Peas	40.96	12.55	30.64	—	—	—	**	**	**	**	**	**	**	**	**
Lentils	18.84	4.63	24.57	**	**	**	—	—	—	**	**	**	2.13	0.78	36.54
Vetch	44.73	14.76	33.01	—	—	—	—	—	—	—	—	—	1.58	0.68	42.94
OILSEEDS	232.63	33.16	14.26	—	—	—	**	**	**	**	**	**	**	**	**
Neug	102.85	19.23	18.69	—	—	—	—	—	—	—	—	—	2.16	1.04	48.10
Linseed	100.59	24.20	24.06	—	—	—	—	—	—	**	**	**	3.73	1.77	47.55
Rapeseed	**	**	**	—	—	—	**	**	**	—	—	—	**	**	**
Groundnuts	**	**	**	—	—	—	**	**	**	—	—	—	**	**	**
Sunflower	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Sesame	**	**	**	—	—	—	**	**	**	—	—	—	**	**	**
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	**	**	**
Others	58.83	8.78	14.93	**	**	**	1.80	0.48	26.68	**	**	**	14.44	3.86	26.73
Fenugreek	**	**	**	—	—	—	—	—	—	—	—	—	0.50	0.26	52.30
Spices	9.90	2.14	21.63	—	—	—	**	**	**	—	—	—	1.61	0.45	27.89
Potatoes	11.07	4.54	41.02	—	—	—	**	**	**	—	—	—	**	**	**
Other Temporary	27.44	3.37	12.28	**	**	**	1.50	0.44	29.45	**	**	**	6.59	1.56	23.73
ALL TEMPORARY	3673.89	134.17	3.65	79.14	12.08	15.26	**	**	**	426.11	56.26	13.20	1442.67	111.66	7.74
Chat	56.43	5.10	9.03	—	—	—	2.93	0.93	31.91	1.23	0.50	40.71	13.92	3.60	25.90
Coffee	108.24	17.29	15.97	7.97	2.67	33.54	**	**	**	**	**	**	3.88	1.15	29.71
Enset	85.55	28.71	33.56	—	—	—	**	**	**	**	**	**	12.69	4.32	34.05
Cotton	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Tobacco	1.61	0.69	42.76	—	—	—	**	**	**	—	—	—	**	**	**
Fruits	7.04	1.36	19.37	**	**	**	**	**	**	**	**	**	0.93	0.25	26.71
Other Permanent	7.27	1.91	26.22	**	**	**	**	**	**	—	—	—	1.14	0.31	27.13
TOTAL PERMANENT	266.17	36.20	13.60	8.00	2.68	33.45	7.24	2.07	28.54	2.49	0.82	33.05	32.73	6.35	19.39
ALL CROPS	3940.06	134.82	3.42	87.14	12.36	14.18	22.57	9.37	41.50	428.60	56.25	13.12	1475.41	111.85	7.58

Table 1.6

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area, their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

SOMALI

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer 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	49.35	7.24	14.66	5.45	2.09	38.41	**	**	**	**	**	**	**	**	**
Teff	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Barley	4.22	1.20	28.42	**	**	**	—	—	—	—	—	—	—	—	—
Wheat	3.49	1.51	43.29	**	**	**	—	—	—	—	—	—	**	**	**
Maize	16.36	4.06	24.81	2.67	1.04	38.88	**	**	**	**	**	**	**	**	**
Sorghum	24.95	4.97	19.90	**	**	**	**	**	**	**	**	**	**	**	**
Millet	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oats	0.13	0.07	49.42	—	—	—	—	—	—	—	—	—	—	—	—
PULSES	1.12	0.44	39.08	**	**	**	—	—	—	—	—	—	**	**	**
Horsebeans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chickpeas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haricot Beans	0.67	0.33	49.16	**	**	**	—	—	—	—	—	—	**	**	**
Field Peas	0.28	0.13	48.39	**	**	**	—	—	—	—	—	—	—	—	—
Lentils	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Vetch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
OILSEEDS	0.14	0.06	45.45	—	—	—	—	—	—	—	—	—	—	—	—
Neug	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Seasame	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Fenugreek	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Spices	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Potatoes	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Other Temporary	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
ALL TEMPORARY	51.32	7.46	14.53	5.47	2.10	38.37	**	**	**	**	**	**	**	**	**
Chat	5.25	1.53	29.17	—	—	—	**	**	**	**	**	**	**	**	**
Coffee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cotton	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tobacco	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Fruits	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Other Permanent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL PERMANENT	5.26	1.54	29.19	—	—	—	**	**	**	**	**	**	**	**	**
ALL CROPS	56.58	7.74	13.67	5.47	2.10	38.37	**	**	**	**	**	**	**	**	**

Table 1.7

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

BENSHANGUL - GUMEZ

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	87.29	8.45	9.68	**	**	**	-	-	-	**	**	**	**	**	**
Teff	17.89	5.37	30.01	-	-	-	-	-	-	-	-	-	**	**	**
Barley	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Wheat	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Maize	21.73	4.53	20.86	**	**	**	-	-	-	**	**	**	2.18	0.68	31.19
Sorghum	38.34	7.16	18.67	-	-	-	-	-	-	**	**	**	**	**	**
Millet	7.13	2.52	35.38	-	-	-	-	-	-	-	-	-	-	-	-
Oats	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	3.59	1.25	34.75	-	-	-	-	-	-	-	-	-	**	**	**
Horsebeans	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Chickpeas	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Haricot Beans	1.36	0.66	48.62	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Lentils	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	19.57	2.91	14.85	-	-	-	-	-	-	-	-	-	**	**	**
Neug	13.65	2.66	19.50	-	-	-	-	-	-	-	-	-	**	**	**
Linseed	0.12	0.05	47.50	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Groundnuts	1.40	0.65	46.65	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seasame	4.37	1.83	41.91	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	1.59	0.35	21.80	-	-	-	-	-	-	-	-	-	**	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	0.92	0.33	35.49	-	-	-	-	-	-	-	-	-	0.04	0.02	48.49
Potatoes	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Other Temporary	0.50	0.13	25.94	-	-	-	-	-	-	-	-	-	**	**	**
ALL TEMPORARY	112.04	9.21	8.22	**	**	**	-	-	-	**	**	**	**	**	**
Chat	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Coffee	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	0.72	0.24	33.49	-	-	-	**	**	**	-	-	-	**	**	**
Other Permanent	0.11	0.05	43.42	-	-	-	**	**	**	-	-	-	**	**	**
TOTAL PERMANENT	2.12	0.77	36.15	**	**	**	**	**	**	-	-	-	0.09	0.04	47.04
ALL CROPS	114.16	9.46	8.28	**	**	**	**	**	**	**	**	**	**	**	**

Table 1.8

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).
S.N.N.P.R.

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	576.42	43.73	7.59	12.09	2.40	19.87	**	**	**	101.12	18.23	18.03	250.71	33.05	13.18
Teff	183.58	21.79	11.87	2.10	0.87	41.47	—	—	—	51.20	11.00	21.49	94.55	18.21	19.26
Barley	48.55	9.70	19.97	—	—	—	—	—	—	2.21	0.78	35.54	19.25	5.64	29.31
Wheat	64.34	12.94	20.10	**	**	**	**	**	**	42.43	11.40	26.87	53.57	12.79	23.88
Maize	163.24	22.10	13.54	7.56	1.75	23.17	**	**	**	1.36	0.53	39.07	63.37	15.24	24.04
Sorghum	111.76	14.95	13.38	**	**	**	**	**	**	**	**	**	17.49	7.42	42.41
Millet	4.88	1.93	39.59	—	—	—	—	—	—	**	**	**	**	**	**
Oats	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
PULSES	88.63	9.26	10.45	**	**	**	—	—	—	0.37	0.14	37.68	17.08	3.30	19.32
Horsebeans	39.83	5.79	14.54	**	**	**	—	—	—	0.25	0.12	46.49	7.34	2.00	27.17
Chickpeas	25.34	4.93	19.45	—	—	—	—	—	—	**	**	**	3.30	1.65	49.98
Haricot Beans	21.01	3.84	18.30	—	—	—	—	—	—	—	—	—	5.99	1.68	28.12
Field Peas	1.76	0.84	47.99	—	—	—	—	—	—	—	—	—	**	**	**
Lentils	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Vetch	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
OILSEEDS	1.02	0.44	43.03	**	**	**	—	—	—	—	—	—	0.23	0.10	43.32
Neug	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	0.32	0.14	43.17	—	—	—	—	—	—	—	—	—	**	**	**
Rapeseed	**	**	**	**	**	**	—	—	—	—	—	—	**	**	**
Groundnuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Sesame	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	62.41	8.60	13.78	**	**	**	**	**	**	0.38	0.18	46.81	32.29	7.74	23.98
Fenugreek	0.29	0.14	49.24	—	—	—	—	—	—	—	—	—	**	**	**
Spices	22.51	7.66	34.02	—	—	—	**	**	**	**	**	**	16.09	7.40	45.97
Potatoes	4.69	1.10	23.42	—	—	—	**	**	**	**	**	**	2.88	0.77	26.63
Other Temporary	34.92	4.21	12.06	**	**	**	**	**	**	**	**	**	13.13	2.62	19.95
ALL TEMPORARY	728.48	47.85	6.57	12.38	2.42	19.55	**	**	**	101.86	18.31	17.98	300.31	38.02	12.66
Chat	13.22	2.70	20.38	—	—	—	**	**	**	0.63	0.30	48.05	6.43	1.61	25.00
Coffee	74.80	9.08	12.14	3.51	1.14	32.41	**	**	**	**	**	**	21.87	4.07	18.60
Enset	174.30	16.74	9.60	—	—	—	**	**	**	0.33	0.16	46.58	100.29	14.29	14.25
Cotton	**	**	**	—	—	—	**	**	**	—	—	—	—	—	—
Tobacco	0.38	0.14	36.50	—	—	—	—	—	—	—	—	—	0.16	0.07	41.97
Fruits	8.87	3.05	34.35	**	**	**	**	**	**	—	—	—	1.50	0.50	33.26
Other Permanent	5.86	1.07	18.25	**	**	**	**	**	**	**	**	**	1.90	0.40	20.86
TOTAL PERMANENT	286.63	20.59	7.18	3.59	1.14	31.78	**	**	**	**	**	**	132.15	16.09	12.18
ALL CROPS	1015.10	47.28	4.66	15.98	2.69	16.84	**	**	**	106.80	18.57	17.38	432.46	38.82	8.98

Table 1.9

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area, their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

GAMBELA

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	5.03	0.83	16.40	**	**	**	-	-	-	**	**	**	**	**	**
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	2.91	0.80	27.39	**	**	**	-	-	-	**	**	**	**	**	**
Sorghum	2.10	0.46	22.11	**	**	**	-	-	-	-	-	-	**	**	**
Millet	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickpeas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	0.01	0.01	37.43	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seasame	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.47	0.19	40.90	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	0.44	0.19	43.53	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	5.70	0.97	17.05	**	**	**	-	-	-	**	**	**	**	**	**
Chat	0.01	0.01	74.05	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	0.58	0.20	34.90	**	**	**	-	-	-	-	-	-	-	-	-
Enset	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	0.09	0.02	23.77	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	0.05	0.02	42.93	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	0.87	0.28	31.79	0.19	0.09	47.78	-	-	-	-	-	-	-	-	-
ALL CROPS	6.57	1.02	15.55	0.26	0.10	37.84	-	-	-	**	**	**	**	**	**

Table 1.10

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

HARARI

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	4.90	0.37	7.51	0.03	0.01	35.52	0.23	0.08	35.11	0.59	0.15	24.82	2.45	0.31	12.62
Teff	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barley	0.04	0.02	48.26	—	—	—	—	—	—	**	**	**	0.04	0.02	49.63
Wheat	0.10	0.03	31.41	—	—	—	—	—	—	**	**	**	0.08	0.03	33.55
Maize	1.17	0.10	8.37	0.03	0.01	40.58	0.06	0.03	49.90	0.17	0.05	29.52	0.68	0.09	13.61
Sorghum	3.58	0.34	9.52	—	—	—	0.17	0.05	31.39	0.41	0.11	25.96	1.64	0.22	13.32
Millet	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oats	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PULSES	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Horsebeans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chickpeas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haricot Beans	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Field Peas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lentils	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vetch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
OILSEEDS	1.08	0.27	25.46	**	**	**	**	**	**	**	**	**	0.14	0.05	36.20
Neug	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	1.08	0.27	25.46	**	**	**	**	**	**	**	**	**	0.14	0.05	36.20
Sunflower	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sesame	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	0.09	0.02	26.87	—	—	—	0.01	0.00	46.93	—	—	—	0.03	0.01	40.58
Fenugreek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spices	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Potatoes	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Other Temporary	0.07	0.02	29.55	—	—	—	0.01	0.00	46.93	—	—	—	0.02	0.01	35.50
ALL TEMPORARY	6.10	0.51	8.38	0.04	0.01	36.88	0.26	0.09	33.17	0.64	0.15	24.19	2.64	0.31	11.79
Chat	1.65	0.19	11.45	—	—	—	0.16	0.04	26.22	0.09	0.03	37.14	0.96	0.19	19.59
Coffee	0.01	0.01	39.18	—	—	—	—	—	—	—	—	—	—	—	—
Enset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cotton	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tobacco	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fruits	0.09	0.04	43.09	—	—	—	**	**	**	—	—	—	0.01	0.00	39.46
Other Permanent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL PERMANENT	1.76	0.18	10.17	—	—	—	0.18	0.05	25.73	0.09	0.03	36.46	0.97	0.19	19.31
ALL CROPS	7.86	0.51	6.49	0.04	0.01	36.88	0.45	0.13	28.50	0.73	0.18	24.34	3.61	0.45	12.58

Table 1.11

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

ADDIS ABABA

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	7.49	0.68	9.10	0.19	0.06	31.26	—	—	—	0.33	0.10	30.31	7.24	0.68	9.38
Teff	4.49	0.41	9.20	0.10	0.05	46.74	—	—	—	0.30	0.09	29.75	4.47	0.41	9.25
Barley	0.22	0.10	44.29	—	—	—	—	—	—	—	—	—	**	**	**
Wheat	2.71	0.36	13.45	0.08	0.02	27.63	—	—	—	**	**	**	2.65	0.36	13.78
Maize	0.01	0.00	38.06	—	—	—	—	—	—	—	—	—	—	—	—
Sorghum	0.07	0.03	35.30	—	—	—	—	—	—	—	—	—	0.01	0.00	46.74
Millet	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oats	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PULSES	2.09	0.28	13.33	**	**	**	—	—	—	—	—	—	0.71	0.14	19.22
Horsebeans	0.16	0.06	34.77	—	—	—	—	—	—	—	—	—	0.05	0.02	37.95
Chickpeas	0.03	0.02	43.70	—	—	—	—	—	—	—	—	—	**	**	**
Haricot Beans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Peas	0.65	0.13	20.06	—	—	—	—	—	—	—	—	—	0.22	0.05	24.91
Lentils	0.46	0.09	20.23	**	**	**	—	—	—	—	—	—	0.26	0.07	27.44
Vetch	0.78	0.10	12.40	**	**	**	—	—	—	—	—	—	0.18	0.04	19.89
OILSEEDS	0.03	0.02	48.06	—	—	—	—	—	—	—	—	—	**	**	**
Neug	**	**	**	—	—	—	—	—	—	—	—	—	—	—	—
Linseed	**	**	**	—	—	—	—	—	—	—	—	—	**	**	**
Rapeseed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Groundnuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Seasame	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	0.14	0.03	22.31	**	**	**	—	—	—	—	—	—	0.08	0.02	25.70
Fenugreek	0.09	0.02	22.67	—	—	—	—	—	—	—	—	—	0.03	0.01	26.75
Spices	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Potatoes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Temporary	0.06	0.02	36.04	**	**	**	—	—	—	—	—	—	0.05	0.02	38.91
ALL TEMPORARY	9.75	0.93	9.53	0.21	0.06	28.17	**	**	**	0.33	0.10	30.31	8.04	0.76	9.51
Chat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coffee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cotton	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tobacco	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fruits	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Permanent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL PERMANENT	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ALL CROPS	9.76	0.93	9.53	0.21	0.06	28.17	**	**	**	0.33	0.10	30.31	8.04	0.76	9.51

Table 1.12

Estimates of Total Area, Improved Seed, Irrigation, Pesticide and Fertilizer Applied Area,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).
DIRE DAWA

VARIABLE	Total Area			Improved Seed Applied Area			Irrigation Applied Area			Pesticide Applied Area			Fertilizer Applied Area		
	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	5.60	0.51	9.19	0.09	0.03	35.63	0.53	0.15	27.89	0.38	0.14	36.74	1.09	0.22	19.68
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	0.13	0.05	36.90	**	**	**	**	**	**	**	**	**	**	**	**
Sorghum	5.46	0.52	9.47	0.08	0.03	36.87	0.48	0.15	30.81	0.33	0.11	33.76	1.04	0.20	19.63
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	0.10	0.04	42.17	**	**	**	**	**	**	-	-	-	0.04	0.02	47.47
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickpeas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	0.09	0.04	41.47	-	-	-	**	**	**	-	-	-	0.04	0.02	44.59
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.05	0.02	31.91	-	-	-	0.02	0.01	44.64	-	-	-	**	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	0.05	0.02	33.06	-	-	-	0.02	0.01	46.27	-	-	-	**	**	**
ALL TEMPORARY	5.75	0.53	9.18	0.10	0.03	34.90	0.57	0.16	28.21	0.38	0.14	36.50	1.16	0.23	20.00
Chat	0.41	0.10	24.21	-	-	-	0.14	0.05	35.14	-	-	-	0.09	0.03	33.74
Coffee	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	0.13	0.06	44.49	-	-	-	**	**	**	**	**	**	0.04	0.02	48.61
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	0.56	0.11	19.88	-	-	-	0.23	0.06	26.38	**	**	**	0.13	0.04	27.35
ALL CROPS	6.31	0.54	8.51	0.10	0.03	34.90	0.79	0.21	26.08	0.39	0.14	35.75	1.29	0.25	19.05

Table 2.1: Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).
NATIONAL

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	2501.97	141.53	5.66	320.99	27.02	8.42	1278.70	110.89	8.67	260.22	46.00	17.68	611.99	92.00	15.03	30.07	4.78	15.88
Teff	1175.65	98.45	8.37	21.05	3.61	17.17	657.70	70.22	10.68	125.28	26.19	20.90	363.22	65.95	18.16	8.39	2.13	25.38
Barley	207.60	41.15	19.82	25.65	5.15	20.06	143.28	36.68	25.60	20.14	6.84	33.96	16.93	5.55	32.81	1.59	0.80	37.89
Wheat	443.69	58.74	12.79	11.48	3.44	29.97	218.96	37.06	16.92	42.44	17.44	41.09	165.50	36.80	22.23	5.30	1.52	28.77
Maize	445.52	38.25	8.58	192.52	18.82	9.78	147.24	24.69	16.77	45.50	14.27	31.37	48.88	7.66	15.67	11.38	3.18	27.94
Sorghum	107.98	15.62	14.46	63.87	12.36	19.35	13.41	3.13	23.38	12.69	3.87	30.53	14.60	4.53	30.99	3.42	1.54	45.03
Millet	102.39	25.34	24.74	5.89	1.69	28.68	84.74	22.98	27.12	10.74	4.47	41.58	**	**	**	-	-	-
Oats	19.15	9.06	47.30	0.53	0.23	42.98	**	**	**	**	**	**	**	**	**	-	-	-
PULSES	78.11	12.17	15.58	18.28	2.41	13.18	45.15	11.33	25.09	4.77	1.34	28.10	8.29	2.41	29.05	1.62	0.70	43.06
Horse Beans	41.45	10.82	26.11	10.23	1.78	17.37	28.15	10.62	37.72	0.65	0.28	43.18	1.75	0.72	40.87	**	**	**
Chick Peas	13.72	2.95	21.52	2.17	0.57	26.23	8.39	2.48	29.52	0.86	0.36	41.38	2.16	0.98	45.22	**	**	**
Haricot Beans	11.99	2.35	19.57	5.03	1.22	24.31	2.40	0.61	25.60	2.90	1.22	41.93	**	**	**	**	**	**
Field Peas	4.88	1.91	39.11	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Lentils	3.65	1.07	29.30	**	**	**	1.93	0.72	37.35	**	**	**	1.42	0.64	45.17	-	-	-
Vetch	2.41	0.92	38.20	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
OILSEEDS	33.05	10.00	30.26	4.23	1.10	25.95	25.99	9.75	37.51	1.69	0.81	47.77	0.72	0.33	45.92	**	**	**
Neug	9.37	2.98	31.84	**	**	**	7.35	2.85	38.70	**	**	**	**	**	**	**	**	**
Linseed	6.03	2.43	40.35	0.50	0.20	39.76	**	**	**	**	**	**	**	**	**	**	**	**
Rapeseed	**	**	**	2.19	0.81	37.10	**	**	**	**	**	**	**	**	**	0.02	0.01	48.30
Groundnuts	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-
Sunflower	**	**	**	-	-	-	**	**	**	-	**	**	-	-	-	-	-	-
Sesame	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Castore Bean	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Others	57.56	8.98	15.61	26.38	3.46	13.11	22.58	6.57	29.10	**	**	**	1.32	0.46	34.93	0.33	0.13	38.13
Fenugreek	0.86	0.30	34.28	0.21	0.08	37.46	**	**	**	**	**	**	**	**	**	-	-	-
Spices	21.99	7.47	33.97	4.92	0.87	17.61	11.96	5.65	47.24	**	**	**	**	**	**	**	**	**
Potatoes	13.94	4.08	29.23	5.57	1.95	34.98	8.81	3.09	45.42	1.28	0.56	43.50	3.58	1.26	35.35	0.26	0.12	47.08
Other Temporary	20.77	3.08	14.82	15.68	2.68	17.07	3.33	0.92	27.58	0.88	0.32	36.15	0.69	0.29	45.99	32.44	4.96	15.30
ALL TEMPORARY	2670.69	151.27	5.66	369.88	29.47	7.97	1372.42	121.74	8.87	273.64	47.93	17.52	622.31	93.25	14.99	**	**	**
Chat	25.14	4.32	17.18	15.22	2.66	17.47	1.39	0.48	34.86	3.58	1.26	35.35	2.79	1.18	42.19	**	**	**
Coffee	27.92	4.32	15.47	23.96	3.51	14.67	1.41	0.48	33.93	1.62	0.70	43.29	**	**	**	**	**	**
Enset	112.98	14.93	13.21	111.25	14.83	13.33	0.33	0.17	49.49	**	**	**	**	**	**	**	**	**
Cotton	0.30	0.13	42.22	0.29	0.13	43.29	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	0.31	0.10	32.64	0.29	0.10	34.12	**	**	**	-	-	-	-	-	-	-	-	-
Fruits	2.74	0.57	20.79	2.37	0.53	22.41	**	**	**	**	**	**	**	**	**	**	**	**
Other Permanent	4.79	0.65	13.56	4.35	0.61	14.06	**	**	**	**	**	**	**	**	**	**	**	**
TOTAL PERMANENT	174.18	17.46	10.03	157.73	16.54	10.48	3.47	0.80	23.13	5.97	1.67	28.02	3.78	1.35	35.63	**	**	**
ALL CROPS	2844.87	151.73	5.33	527.61	34.35	6.51	1375.86	121.76	8.85	279.61	48.05	17.19	626.09	93.32	14.91	35.67	6.00	16.81

Table 2.2 Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).
TIGRAY

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	111.05	17.05	15.36	61.70	15.29	24.77	14.72	3.98	27.02	14.41	5.84	40.53	16.74	6.15	36.72	3.48	1.21	34.72
Teff	29.73	8.53	28.70	4.76	2.33	48.98	7.72	3.04	39.34	6.21	2.26	36.45	9.66	4.32	44.68	**	**	**
Barley	14.87	4.37	29.37	7.29	2.77	37.95	2.90	1.37	47.19	**	**	**	**	**	**	**	**	**
Wheat	15.69	5.18	33.04	**	**	**	1.78	0.73	40.85	**	**	**	2.70	1.20	44.63	**	**	**
Maize	20.08	5.91	29.43	16.32	5.84	35.80	**	**	**	**	**	**	**	**	**	**	**	**
Sorghum	25.26	8.55	33.84	23.92	8.59	35.91	**	**	**	**	**	**	**	**	**	**	**	**
Millet	5.42	1.96	36.17	3.14	1.17	37.06	**	**	**	**	**	**	**	**	**	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	2.28	1.06	46.40	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Horse Beans	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-	-	-	-
Haricot Beans	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	113.44	17.40	15.34	63.85	15.85	24.82	14.84	3.98	26.84	14.52	5.85	40.30	16.74	6.15	36.72	3.48	1.21	34.72
Chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-
ALL CROPS	113.66	17.41	15.33	63.96	15.85	24.79	14.86	3.98	26.82	14.52	5.85	40.30	16.74	6.15	36.72	3.48	1.21	34.72

Table 2.3

Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation,
for Private Peasant Holdings, 1996/97 (1989 E.C.).
AFAR

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Bale	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-

Table 2.4

Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation,
for Private Peasant Holdings, 1996/97 (1989 E.C.).
AMHARA

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	745.14	87.23	11.71	114.76	15.59	13.59	373.36	63.29	16.95	82.61	30.71	37.17	167.54	38.67	23.08	6.87	1.84	26.85
Teff	408.07	53.45	13.10	7.20	2.02	28.01	225.05	37.93	16.86	59.79	21.93	36.68	112.71	26.07	23.13	3.32	1.35	40.82
Barley	29.19	7.28	24.93	11.55	3.58	30.96	13.81	5.29	38.31	**	**	**	**	**	**	-	-	-
Wheat	68.64	17.44	25.41	1.05	0.40	38.00	19.82	6.51	32.86	**	**	**	39.65	13.54	34.15	**	**	**
Maize	143.80	23.36	16.24	83.08	13.77	16.58	44.38	15.15	34.16	**	**	**	8.20	2.91	35.56	2.67	1.11	41.64
Sorghum	15.32	4.29	27.97	9.58	3.71	38.73	**	**	**	**	**	**	4.17	1.96	47.12	**	**	**
Millet	79.78	24.74	31.01	**	**	**	68.94	22.44	32.55	**	**	**	**	**	**	-	-	-
Oats	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	17.01	4.64	27.30	5.41	1.41	26.00	8.91	3.43	38.53	**	**	**	**	**	**	**	**	**
Horse Beans	6.39	2.60	30.95	3.34	1.09	32.60	4.70	2.08	44.24	**	**	**	-	-	-	**	**	**
Chick Peas	4.64	1.76	37.97	1.27	0.45	35.43	**	**	**	**	**	**	**	**	**	**	**	**
Horicot Beans	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-
Lentils	**	**	**	-	-	-	**	**	**	-	-	-	**	**	**	-	-	-
Vetch	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**	-	-	-
OILSEEDS	17.80	6.54	36.71	2.78	0.99	35.53	13.98	6.21	44.44	**	**	**	**	**	**	**	**	**
Noug	7.20	2.80	38.67	**	**	**	5.71	2.68	46.96	**	**	**	-	-	-	-	-	-
Linseed	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Rapeseed	**	**	**	1.56	0.77	49.42	**	**	**	**	**	**	**	**	**	**	**	**
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	**	**	**	-	-	-	**	**	**	-	-	-	**	**	**	-	-	-
Sesame	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Castore Bean	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Others	10.49	2.43	23.13	6.67	1.97	29.51	2.69	1.28	47.61	**	**	**	**	**	**	**	**	**
Fenugreek	**	**	**	**	**	**	-	-	-	**	**	**	**	**	**	-	-	-
Spices	4.24	0.93	21.91	2.77	0.70	25.07	**	**	**	**	**	**	**	**	**	-	-	-
Potatoes	5.16	2.28	44.15	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Other Temporary	0.95	0.40	42.53	0.35	0.10	27.56	**	**	**	**	**	**	**	**	**	**	**	**
ALL TEMPORARY	790.44	92.94	11.78	129.62	17.15	13.23	398.94	69.00	17.30	83.97	31.35	37.33	170.39	39.88	23.40	7.52	2.05	27.25
Chat	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	2.11	0.88	41.85	2.11	0.88	41.85	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	0.27	0.12	46.08	0.26	0.12	47.37	-	-	-	-	-	-	**	**	**	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	0.23	0.11	49.22	0.23	0.11	49.22	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	1.62	0.39	24.32	1.62	0.39	24.33	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	6.82	2.28	33.41	6.81	2.28	33.46	-	-	-	-	-	-	**	**	**	-	-	-
ALL CROPS	797.26	93.12	11.68	136.42	17.79	13.04	398.95	69.00	17.30	83.97	31.35	37.33	170.40	39.88	23.40	7.52	2.05	27.25

Table 2.5 Estimates of Fertilizer Applied Area by type of Fertilizer. Their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

OROMIYA

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	1373.24	104.96	7.64	109.40	12.77	11.68	703.18	86.15	12.25	137.50	32.42	23.58	406.68	83.19	20.46	16.48	4.09	24.83
Teff	634.27	80.14	12.64	7.21	1.71	23.78	340.11	56.21	16.53	51.46	13.96	27.13	233.14	60.42	25.91	**	**	**
Barley	143.87	39.86	27.71	2.39	0.80	33.60	115.48	35.97	31.15	13.15	6.19	47.10	12.46	5.03	40.38	**	**	**
Wheat	301.99	52.19	17.28	2.82	1.06	37.73	148.71	34.19	22.99	**	**	**	118.41	34.18	28.87	3.11	1.19	38.39
Maize	214.00	25.47	11.90	81.66	10.64	13.03	64.61	16.50	25.54	28.70	11.93	41.56	31.34	6.71	21.41	7.69	2.93	38.15
Sorghum	45.60	9.81	21.51	14.41	2.77	19.24	8.08	2.74	33.85	10.73	3.83	35.74	9.42	4.06	43.06	**	**	**
Millet	14.75	4.94	33.47	**	**	**	12.84	4.81	37.46	**	**	**	**	**	**	-	-	-
Oats	18.77	9.05	48.23	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-
PULSES	40.33	10.69	26.50	5.89	1.07	18.18	26.05	10.46	40.14	2.05	0.82	40.06	5.64	1.67	29.65	**	**	**
Horse Beans	23.64	10.26	43.39	3.30	0.72	21.71	**	**	**	**	**	**	1.71	0.72	41.80	**	**	**
Chick Peas	5.49	1.69	30.74	0.66	0.28	42.48	2.73	1.13	41.53	**	**	**	**	**	**	-	-	-
Haricot Beans	5.11	1.56	30.57	1.83	0.64	34.93	**	**	**	**	**	**	**	**	**	**	**	**
Field Peas	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Lentils	2.13	0.78	36.54	**	**	**	1.62	0.68	41.95	-	-	-	**	**	**	-	-	-
Vetch	1.58	0.68	42.94	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
OILSEEDS	**	**	**	1.12	0.46	41.50	**	**	**	**	**	**	**	**	**	**	**	**
Neug	2.16	1.04	48.10	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Linseed	3.73	1.77	47.55	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Rapeseed	**	**	**	0.51	0.24	47.26	**	**	**	-	-	-	**	**	**	-	-	-
Groundnuts	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-
Sunflower	**	**	**	-	-	-	**	**	**	**	**	**	-	-	-	-	-	-
Sesame	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Castore Bean	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	14.44	3.86	26.73	5.92	1.32	22.29	**	**	**	1.87	0.65	34.78	0.79	0.38	48.28	**	**	**
Fenugreek	**	**	**	0.11	0.05	44.21	**	**	**	-	-	-	-	-	-	-	-	-
Spices	1.61	0.45	27.89	1.29	0.38	29.60	**	**	**	**	**	**	-	-	-	-	-	-
Potatoes	**	**	**	1.22	0.37	30.60	**	**	**	1.13	0.55	48.55	**	**	**	**	**	**
Other Temporary	6.59	1.56	23.73	3.30	1.17	35.55	1.90	0.78	40.90	0.69	0.31	44.47	**	**	**	**	**	**
ALL TEMPORARY	1442.67	111.66	7.74	122.32	13.84	11.31	746.78	94.89	12.71	142.47	33.23	23.33	413.54	84.01	20.32	17.56	4.15	23.61
Chat	13.92	3.60	25.90	5.43	1.33	24.48	1.07	0.47	43.83	2.90	1.25	43.00	2.59	1.18	45.44	**	**	**
Coffee	3.88	1.15	29.71	3.28	1.02	31.07	**	**	**	**	**	**	**	**	**	**	**	**
Enset	12.69	4.32	34.05	12.34	4.27	34.60	**	**	**	**	**	**	-	-	-	-	-	-
Cotton	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	0.93	0.25	26.71	0.69	0.17	24.35	-	-	-	**	**	**	**	**	**	**	**	**
Other Permanent	1.14	0.31	27.13	1.02	0.30	29.34	**	**	**	-	-	-	**	**	**	-	-	-
TOTAL PERMANENT	32.73	6.35	19.39	22.93	5.27	22.97	1.40	0.49	35.27	3.67	1.50	40.87	2.64	1.18	44.53	**	**	**
ALL CROPS	1475.41	111.85	7.58	145.26	15.05	10.36	748.18	94.90	12.68	146.14	33.39	22.84	416.18	84.09	20.20	19.64	5.29	26.95

Table 2.6 Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

SOMALI

VARIABLE	Total Area				Natural Fertilizer Applied Area				Dap Applied Area				Urea Applied Area				Dap + Urea Applied Area				Nat + Com Fert. Applied Area			
	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	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Bailey	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Wheat	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Maize	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Sorghum	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Millet	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Oats	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
PULSES	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Horse Beans	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Chick Peas	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Haricot Beans	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Field Peas	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Lentils	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Vetch	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
OILSEEDS	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Naug	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Linseed	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Rapeseed	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Groundnuts	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Sunflower	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Sesame	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Castore Bean	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Others	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Fenugreek	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Spices	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Potatoes	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Other Temporary	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
ALL TEMPORARY	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Chat	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
Coffee	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Enset	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Cotton	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Tobacco	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Fruits	—	—	—		—	—	—		—	—	—		—	—	—		—	—	—		—	—	—	
Other Permanent	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
TOTAL PERMANENT	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	
ALL CROPS	**	**	**		**	**	**		**	**	**		**	**	**		**	**	**		**	**	**	

Table 2.7

**Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation,
for Private Peasant Holdings, 1996/97 (1989 E.C.).**
BENSHANGUL-GUMEZ

[illegible]

Table 2.8

Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation,
for Private Peasant Holdings, 1996/97 (1989 E.C.).
S.N.N.P.R.

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	250.71	33.05	13.18	27.99	9.22	32.93	183.69	29.16	15.88	23.89	9.37	39.21	13.31	3.08	23.13	1.83	0.73	40.12
Teff	94.55	18.21	19.26	0.80	0.33	40.80	82.14	17.91	21.81	7.46	2.21	29.57	3.36	1.15	34.20	**	**	**
Barley	19.25	5.64	29.31	**	**	**	11.01	4.66	42.35	**	**	**	**	**	**	**	**	**
Wheat	53.57	12.79	23.86	0.84	0.42	49.48	48.16	12.70	26.37	2.06	0.63	30.46	2.30	0.86	37.43	**	**	**
Maize	63.37	15.24	24.04	8.41	4.08	48.48	37.53	10.36	27.62	**	**	**	6.20	1.63	26.30	**	**	**
Sorghum	17.49	7.42	42.41	**	**	**	3.47	1.17	33.66	**	**	**	-	-	-	-	-	-
Millet	**	**	**	**	**	**	1.36	0.61	44.73	**	**	**	-	-	-	-	-	-
Oats	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-
PULSES	17.08	3.30	19.32	4.26	1.14	26.71	9.84	2.67	27.11	2.32	1.05	45.05	**	**	**	**	**	**
Horse Beans	7.34	2.00	27.17	1.55	0.56	36.33	5.29	1.90	36.00	**	**	**	**	**	**	**	**	**
Chick Peas	3.30	1.65	49.98	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**
Haricot Beans	5.99	1.68	28.12	2.34	0.92	39.45	1.68	0.49	28.98	**	**	**	**	**	**	**	**	**
Field Peas	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Lentils	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	0.23	0.10	43.32	**	**	**	0.12	0.06	47.29	**	**	**	-	-	-	-	-	-
Naug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Rapeseed	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	32.29	7.74	23.98	13.58	2.52	18.52	14.19	5.63	39.72	**	**	**	**	**	**	**	**	**
Fenugreek	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Spices	16.09	7.40	45.97	0.81	0.35	42.96	**	**	**	**	**	**	-	-	-	-	-	-
Potatoes	2.88	0.77	26.63	0.73	0.18	24.79	2.02	0.68	33.70	**	**	**	-	-	-	**	**	**
Other Temporary	13.13	2.62	19.95	11.99	2.40	20.05	0.98	0.34	35.00	0.10	0.05	48.98	**	**	**	**	**	**
ALL TEMPORARY	300.31	38.02	12.66	45.94	11.16	24.30	207.83	32.19	15.49	30.67	13.26	43.21	13.44	3.10	23.04	2.42	1.06	43.65
Chat	6.43	1.61	25.00	6.01	1.54	25.65	0.13	0.06	49.14	**	**	**	-	-	-	-	-	-
Coffee	21.87	4.07	18.60	18.51	3.25	17.63	1.29	0.47	36.54	1.18	0.53	46.16	**	**	**	**	**	**
Enset	100.29	14.29	14.25	98.90	14.20	14.35	**	**	**	**	**	**	**	**	**	**	**	**
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	0.16	0.07	41.97	0.14	0.06	45.36	**	**	**	-	-	-	-	-	-	-	-	-
Fruits	1.50	0.50	33.26	1.38	0.49	35.58	**	**	**	**	**	**	**	**	**	**	**	**
Other Permanent	1.90	0.40	20.86	1.60	0.35	21.57	**	**	**	**	**	**	**	**	**	-	-	-
TOTAL PERMANENT	132.15	16.09	12.18	126.55	15.50	12.25	1.86	0.62	33.54	1.91	0.74	38.50	**	**	**	**	**	**
ALL CROPS	432.46	38.82	8.98	172.49	19.42	11.26	209.69	32.25	15.38	32.58	13.32	40.69	14.37	3.18	22.13	3.32	1.25	37.63

Table 2.9

Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation,
for Private Peasant Holdings, 1996/97 (1989 E.C.).

GAMBELA

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	-	-	-	**	**	**	**	**	**	**	**	**	-	-	-
Chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	-	-	-	**	**	**	**	**	**	**	**	**	-	-	-

Table 2.10

Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation,
for Private Peasant Holdings, 1996/97 (1989 E.C.).

HARARI

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	2.45	0.31	12.62	0.23	0.05	23.21	0.27	0.10	38.67	0.98	0.14	13.89	0.45	0.14	31.51	0.51	0.17	33.80
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	0.04	0.02	49.63	-	-	-	**	**	**	0.01	0.00	44.67	-	-	-	**	**	**
Wheat	0.08	0.03	33.55	-	-	-	**	**	**	0.02	0.01	35.71	0.03	0.01	38.68	**	**	**
Maize	0.68	0.09	13.61	0.07	0.02	27.29	0.08	0.02	30.42	0.31	0.05	17.75	0.11	0.03	27.99	0.14	0.05	36.24
Sorghum	1.64	0.22	13.32	0.16	0.04	23.17	0.17	0.06	33.79	0.64	0.10	15.87	0.31	0.11	34.82	0.36	0.12	33.85
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	**	**	**	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	0.14	0.05	36.20	**	**	**	-	-	-	**	**	**	-	-	-	0.02	0.01	48.30
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	0.14	0.05	36.20	**	**	**	-	-	-	**	**	**	-	-	-	0.02	0.01	48.30
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.03	0.01	40.58	0.01	0.00	47.01	**	**	**	0.01	0.00	41.98	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-
Other Temporary	0.02	0.01	35.50	0.01	0.00	47.17	-	-	-	0.01	0.00	37.59	-	-	-	-	-	-
ALL TEMPORARY	2.64	0.31	11.79	0.27	0.07	26.09	0.29	0.12	39.21	1.09	0.15	14.13	0.46	0.14	31.44	0.53	0.17	32.87
Chat	0.98	0.19	19.59	0.10	0.03	28.91	0.10	0.04	38.66	0.32	0.06	20.04	0.20	0.07	35.25	0.24	0.07	29.86
Coffee	-	-	-	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	0.01	0.00	39.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	0.97	0.19	19.31	0.11	0.03	26.51	0.10	0.04	38.74	0.32	0.06	19.53	0.20	0.07	35.19	0.24	0.07	29.86
ALL CROPS	3.61	0.45	12.58	0.38	0.09	24.27	0.39	0.14	34.55	1.41	0.19	13.33	0.66	0.21	31.95	0.77	0.24	31.23

Table 2.11

Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation,
for Private Peasant Holdings, 1996/97 (1989 E.C.).
ADDIS ABABA

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	7.24	0.68	9.38	**	**	**	0.32	0.08	24.12	0.11	0.04	31.91	6.74	0.69	10.22	**	**	**
Teff	4.47	0.41	9.25	-	-	-	0.09	0.03	30.23	**	**	**	4.34	0.41	9.42	**	**	**
Bailey	**	**	**	**	**	**	**	**	**	**	**	**	0.02	0.01	45.69	**	**	**
Wheat	2.65	0.36	13.78	**	**	**	0.17	0.04	24.33	0.07	0.03	43.49	2.36	0.36	15.29	**	**	**
Maize	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	0.01	0.00	46.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	0.71	0.14	19.22	**	**	**	0.20	0.05	24.72	0.07	0.03	46.97	0.40	0.10	25.14	**	**	**
Horse Beans	0.05	0.02	37.95	**	**	**	**	**	**	-	-	-	**	**	**	-	-	-
Chick Peas	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	0.22	0.05	24.91	**	**	**	0.07	0.02	33.86	**	**	**	0.12	0.03	26.22	-	-	-
Lentils	0.26	0.07	27.44	**	**	**	0.06	0.02	33.60	**	**	**	0.16	0.06	33.99	-	-	-
Vetch	0.18	0.04	19.89	**	**	**	0.04	0.01	30.26	**	**	**	0.10	0.03	28.92	-	-	-
OILSEEDS	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.08	0.02	25.70	-	-	-	-	-	-	-	-	-	0.07	0.02	28.61	-	-	-
Fenugreek	0.03	0.01	26.75	-	-	-	-	-	-	-	-	-	0.02	0.01	32.16	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	0.05	0.02	38.91	-	-	-	-	-	-	-	-	-	0.04	0.02	39.51	-	-	-
ALL TEMPORARY	8.04	0.76	9.51	**	**	**	0.53	0.10	18.17	0.18	0.04	25.10	7.21	0.74	10.30	0.04	0.02	49.18
Chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	8.04	0.76	9.51	0.07	0.03	45.68	0.53	0.10	18.17	0.18	0.04	25.10	7.21	0.74	10.30	0.04	0.02	49.18

Table 2.12 Estimates of Fertilizer Applied Area by type of Fertilizer, Their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).
DIRE DAWA

VARIABLE	Total Area			Natural Fertilizer Applied Area			Dap Applied Area			Urea Applied Area			Dap + Urea Applied Area			Nat + Com Fert. Applied Area		
	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	1.09	0.22	19.68	0.74	0.19	25.12	0.05	0.03	48.85	0.14	0.06	42.90	0.10	0.05	47.09	**	**	**
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Sorghum	1.04	0.20	19.63	0.69	0.17	25.09	0.05	0.03	49.97	0.13	0.06	43.86	0.10	0.05	47.09	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	0.04	0.02	47.47	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Horse Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	0.04	0.02	44.59	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
ALL TEMPORARY	1.16	0.23	20.00	0.78	0.20	25.37	0.05	0.03	47.59	0.14	0.06	42.58	0.10	0.05	47.51	**	**	**
Chat	0.09	0.03	33.74	0.07	0.03	38.45	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	0.04	0.02	48.61	0.04	0.02	48.61	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	0.13	0.04	27.35	0.11	0.03	28.54	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	1.29	0.25	19.05	0.89	0.21	23.78	0.06	0.03	47.60	0.15	0.07	43.36	0.11	0.05	46.26	**	**	**

Table 3.1

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

NATIONAL

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	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	2410.93	208.36	8.64	1123.89	107.55	9.57	236.10	41.02	17.38	1001.75	185.53	18.52	50.19	13.09	26.08
Teff	1173.73	128.27	10.93	538.80	62.22	11.55	86.10	19.49	22.64	539.00	114.29	21.20	10.43	2.79	26.75
Barley	177.21	35.83	20.22	130.94	32.48	24.81	20.78	5.88	28.29	21.74	7.18	33.01	**	**	**
Wheat	576.58	91.11	15.80	238.80	45.22	18.94	35.18	11.00	31.28	294.42	78.40	26.63	8.50	2.71	31.87
Maize	336.80	44.74	13.28	135.76	24.57	18.10	68.99	19.91	28.86	114.17	18.63	16.32	17.86	7.06	39.54
Sorghum	71.05	21.24	29.90	14.59	3.50	23.96	17.51	6.32	36.10	29.77	12.83	43.10	**	**	**
Millet	65.21	18.04	27.67	56.52	16.61	29.39	6.47	2.44	37.67	**	**	**	**	**	**
Oats	**	**	**	**	**	**	**	**	**	**	**	**	—	—	—
PULSES	74.20	16.52	22.26	42.67	11.68	27.38	9.74	4.44	45.64	19.32	6.68	34.58	**	**	**
Horsebeans	30.96	11.14	35.98	26.55	10.98	41.36	0.77	0.31	40.02	2.69	1.27	47.36	**	**	**
Chickpeas	9.02	2.86	31.70	6.54	2.67	40.86	0.81	0.33	41.20	**	**	**	**	**	**
Haricot Beans	25.47	11.21	44.00	4.27	1.25	29.15	**	**	**	**	**	**	**	**	**
Field Peas	3.64	1.41	38.60	2.49	1.24	49.61	**	**	**	**	**	**	—	—	—
Lentils	3.61	1.32	36.45	**	**	**	**	**	**	1.16	0.46	39.64	—	—	—
Vetch	1.51	0.61	40.14	**	**	**	**	**	**	**	**	**	**	**	**
OILSEEDS	33.04	12.32	37.29	28.71	10.92	38.05	1.37	0.58	42.34	**	**	**	**	**	**
Neug	4.68	2.10	44.91	**	**	**	**	**	**	—	—	—	—	—	—
Linseed	3.22	1.58	49.08	**	**	**	**	**	**	**	**	**	—	—	—
Rapeseed	**	**	**	18.37	9.03	49.13	**	**	**	**	**	**	**	**	**
Groundnuts	**	**	**	**	**	**	0.31	0.11	36.72	**	**	**	**	**	**
Sunflower	**	**	**	**	**	**	—	—	—	**	**	**	—	—	—
Sesame	**	**	**	**	**	**	**	**	**	—	—	—	—	—	—
Castor Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	62.86	22.45	35.72	36.66	12.28	33.50	**	**	**	6.06	2.51	41.35	1.24	0.60	48.77
Fenugreek	0.69	0.29	42.60	**	**	**	**	**	**	0.05	0.02	37.96	—	—	—
Spices	**	**	**	25.53	12.05	47.20	**	**	**	**	**	**	**	**	**
Potatoes	11.99	3.62	30.17	7.05	2.64	37.51	3.32	1.41	42.45	**	**	**	**	**	**
Other Temporary	11.11	2.72	24.48	3.62	1.09	30.00	2.18	0.84	38.62	4.23	1.95	46.17	**	**	**
ALL TEMPORARY	2581.03	220.34	8.54	1231.93	119.77	9.72	266.11	49.50	18.60	1029.30	187.81	18.25	54.70	13.41	24.52
Chat	48.65	16.70	34.34	5.23	1.75	33.55	14.94	5.11	34.17	19.01	9.24	48.63	**	**	**
Coffee	8.91	2.80	31.47	3.79	1.19	31.50	2.16	0.83	38.21	**	**	**	**	**	**
Enset	2.99	1.46	48.75	**	**	**	**	**	**	**	**	**	**	**	**
Cotton	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
Tobacco	**	**	**	**	**	**	**	**	**	—	—	—	—	—	—
Fruits	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Other Permanent	1.03	0.51	49.43	0.35	0.17	47.30	**	**	**	**	**	**	—	—	—
TOTAL PERMANENT	63.75	17.99	28.21	10.13	2.37	23.39	18.65	5.74	30.75	21.53	9.33	43.35	**	**	**
ALL CROPS	2644.78	224.83	8.50	1242.07	120.00	9.66	284.76	51.48	18.08	1050.83	189.50	18.03	68.14	19.93	29.25

Table 3.2

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

TIGRAY

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	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	79.47	21.52	27.08	21.17	6.56	31.00	17.34	5.95	34.31	31.18	11.50	36.90	9.87	4.44	45.03
Teff	33.08	11.57	34.98	**	**	**	5.77	2.35	40.71	14.66	6.24	42.54	**	**	**
Barley	15.50	7.25	46.78	5.03	2.23	44.37	5.10	2.51	49.21	**	**	**	**	**	**
Wheat	19.56	8.42	43.03	5.07	2.31	45.66	**	**	**	5.79	2.72	47.05	**	**	**
Maize	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Sorghum	1.05	0.47	45.26	**	**	**	**	**	**	**	**	**	-	-	-
Millet	**	**	**	**	**	**	**	**	**	**	**	**	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickpeas	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Lentils	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	79.61	21.52	27.03	21.27	6.57	30.89	17.39	5.96	34.25	31.18	11.50	36.90	9.87	4.44	45.03
Chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
ALL CROPS	79.64	21.53	27.03	21.29	6.57	30.86	17.39	5.96	34.25	31.18	11.50	36.90	9.87	4.44	45.03

Table 3.3

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.)
AFAR

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickpeas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seasame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-

Table 3.4

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

AMHARA

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	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	550.18	87.26	15.86	268.08	51.34	19.15	54.03	20.90	38.69	221.50	57.00	25.73	7.03	1.94	27.55
Teff	323.94	51.22	15.81	149.04	27.15	18.22	34.94	12.77	36.56	137.31	38.26	27.87	3.10	1.19	38.43
Barley	16.11	7.25	44.99	10.98	4.87	44.32	**	**	**	**	**	**	—	—	—
Wheat	83.54	24.59	29.44	15.36	5.38	35.03	**	**	**	59.85	20.89	34.90	**	**	**
Maize	69.25	24.12	34.83	44.93	18.21	40.53	**	**	**	15.86	5.51	34.75	**	**	**
Sorghum	5.56	2.17	38.98	**	**	**	**	**	**	3.99	1.78	44.70	—	—	—
Millet	51.79	17.58	33.95	46.23	16.25	35.15	4.30	1.96	45.61	**	**	**	**	**	**
Oats	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PULSES	5.81	2.58	44.31	3.59	1.40	38.91	**	**	**	**	**	**	**	**	**
Horsebeans	1.86	0.85	45.80	1.55	0.73	47.25	**	**	**	—	—	—	**	**	**
Chickpeas	**	**	**	**	**	**	**	**	**	**	**	**	—	—	—
Haricot Beans	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Field Peas	**	**	**	**	**	**	—	—	—	**	**	**	—	—	—
Lentils	**	**	**	**	**	**	—	—	—	**	**	**	—	—	—
Vetbh	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
OILSEEDS	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Neug	**	**	**	**	**	**	**	**	**	—	—	—	—	—	—
Linseed	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Rapeseed	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Groundnuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	**	**	**	**	**	**	—	—	—	**	**	**	—	—	—
Sesame	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	3.34	1.17	35.13	2.38	1.08	45.24	**	**	**	**	**	**	**	**	**
Fenugreek	**	**	**	—	—	—	**	**	**	**	**	**	—	—	—
Spices	1.04	0.42	40.74	**	**	**	**	**	**	**	**	**	**	**	**
Potatoes	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Other Temporary	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
ALL TEMPORARY	580.56	92.50	15.93	292.68	57.09	19.51	55.09	21.20	38.49	225.32	58.09	25.78	7.92	2.26	28.57
Chat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coffee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cotton	**	**	**	—	—	—	—	—	—	**	**	**	—	—	—
Tobacco	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fruits	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Permanent	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
TOTAL PERMANENT	**	**	**	**	**	**	—	—	—	**	**	**	—	—	—
ALL CROPS	580.58	92.50	15.93	292.69	57.09	19.51	55.09	21.20	38.49	225.33	58.09	25.78	7.92	2.26	28.57

Table 3.5

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

OROMIYA

VARIABLE	Total Quantity			Quantity of DAP			Quantity of Urea			Quantity of DAP & Urea			Quantity of Com. with Nat.		
	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	1464.40	183.42	12.53	601.57	86.76	14.42	128.25	29.90	23.31	707.45	176.11	24.89	27.60	12.07	43.75
Teff	700.49	115.01	16.42	286.49	51.72	18.05	39.97	14.44	36.12	371.27	107.50	28.96	**	**	**
Barley	118.99	33.27	27.97	95.85	31.03	32.37	8.71	3.84	44.12	13.80	6.05	43.87	**	**	**
Wheat	387.49	84.89	21.91	145.65	39.94	27.43	**	**	**	219.75	75.50	34.36	3.10	1.14	36.67
Maize	183.26	30.33	16.55	49.00	11.47	23.41	43.25	14.06	32.50	77.88	16.92	21.73	**	**	**
Sorghum	56.11	21.07	37.55	9.08	3.16	34.82	15.47	6.31	40.81	**	**	**	**	**	**
Millet	7.75	3.21	41.42	7.05	3.20	45.34	0.49	0.21	42.12	**	**	**	—	—	—
Oats	**	**	**	**	**	**	**	**	**	**	**	**	—	—	—
PULSES	47.41	15.47	32.62	24.58	10.84	44.09	**	**	**	15.30	6.33	41.37	**	**	**
Horsebeans	**	**	**	**	**	**	**	**	**	2.63	1.27	48.49	—	—	—
Chickpeas	3.30	1.29	38.99	**	**	**	**	**	**	**	**	**	—	—	—
Haricot Beans	**	**	**	2.07	1.02	49.10	**	**	**	**	**	**	**	**	**
Field Peas	**	**	**	**	**	**	**	**	**	**	**	**	—	—	—
Lentils	2.50	1.21	48.42	**	**	**	—	—	—	**	**	**	—	—	—
Vetch	0.79	0.38	48.66	**	**	**	**	**	**	**	**	**	—	—	—
OILSEEDS	**	**	**	**	**	**	**	**	**	**	**	**	—	—	—
Neug	**	**	**	**	**	**	**	**	**	—	—	—	—	—	—
Linseed	**	**	**	**	**	**	**	**	**	**	**	**	—	—	—
Rapeseed	**	**	**	**	**	**	**	**	**	**	**	**	—	—	—
Groundnuts	**	**	**	**	**	**	**	**	**	**	**	**	—	—	—
Sunflower	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Seasame	**	**	**	—	—	—	**	**	**	—	—	—	—	—	—
Castore Bean	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	16.21	4.75	29.32	5.42	2.51	46.22	4.95	1.80	36.31	5.32	2.49	46.74	**	**	**
Fenugreek	**	**	**	**	**	**	—	—	—	—	—	—	—	—	—
Spices	**	**	**	**	**	**	**	**	**	—	—	—	—	—	—
Potatoes	7.51	3.37	44.80	**	**	**	3.17	1.41	44.44	**	**	**	—	—	—
Other Temporary	8.06	2.50	31.03	2.14	0.91	42.75	1.64	0.78	47.50	**	**	**	**	**	**
ALL TEMPORARY	1538.67	190.68	12.39	640.75	95.90	14.97	140.83	32.33	22.96	728.66	178.15	24.45	28.88	12.19	42.21
Chat	42.80	16.67	38.95	4.12	1.71	41.48	12.69	5.08	40.02	**	**	**	**	**	**
Coffee	**	**	**	0.27	0.13	49.26	**	**	**	**	**	**	—	—	—
Enset	**	**	**	**	**	**	**	**	**	—	—	—	—	—	—
Cotton	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tobacco	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fruits	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Other Permanent	**	**	**	**	**	**	—	—	—	**	**	**	—	—	—
TOTAL PERMANENT	46.57	17.40	37.36	4.48	1.71	38.27	14.28	5.61	39.29	18.57	9.25	49.81	**	**	**
ALL CROPS	1585.23	195.67	12.34	645.23	95.99	14.88	155.11	35.08	22.62	747.24	179.92	24.08	38.12	18.96	49.75

Table 3.6

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

SOMALI

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickpeas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Veget	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Other Temporary	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
ALL TEMPORARY	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
ALL CROPS	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**

Table 3.7

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer, their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

BENSHANGUL-GUMEZ

[illegible]

Table 3.8

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).
S.N.N.P.R.

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	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	287.48	41.08	14.29	230.10	36.89	16.03	**	**	**	21.56	4.55	21.10	2.88	1.14	39.70
Teff	102.85	21.61	21.01	92.83	20.89	22.51	5.27	1.68	31.83	3.96	1.23	31.16	**	**	**
Barley	26.39	8.46	32.06	18.98	7.99	42.12	**	**	**	**	**	**	**	**	**
Wheat	79.90	20.45	25.60	72.22	20.38	28.22	2.92	1.00	34.33	3.73	1.13	30.34	**	**	**
Maize	71.78	21.85	30.44	41.08	11.85	28.85	**	**	**	12.02	3.47	28.84	**	**	**
Sorghum	3.21	1.21	37.85	3.06	1.22	39.89	**	**	**	-	-	-	-	-	-
Millet	**	**	**	1.91	0.91	47.53	**	**	**	-	-	-	-	-	-
Oats	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
PULSES	19.77	5.19	26.26	14.19	4.13	29.13	**	**	**	**	**	**	**	**	**
Horsebeans	9.89	3.47	35.08	8.81	3.16	35.94	**	**	**	**	**	**	**	**	**
Chickpeas	**	**	**	**	**	**	**	**	**	-	-	-	**	**	**
Haricot Beans	6.01	2.39	39.77	2.16	0.72	33.24	**	**	**	**	**	**	**	**	**
Field Peas	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Lentils	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Rapeseed	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castor Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	**	**	**	28.78	11.97	41.60	**	**	**	**	**	**	**	**	**
Fenugreek	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Spices	**	**	**	25.02	12.05	48.15	**	**	**	-	-	-	**	**	**
Potatoes	2.94	0.90	30.62	2.74	0.90	32.89	**	**	**	-	-	-	**	**	**
Other Temporary	2.13	0.95	44.70	0.96	0.35	36.08	**	**	**	**	**	**	**	**	**
ALL TEMPORARY	351.09	56.23	16.02	273.94	42.94	15.68	**	**	**	23.20	5.07	21.86	5.04	2.38	47.17
Chat	1.60	0.59	36.88	**	**	**	**	**	**	**	**	**	-	-	-
Coffee	7.86	2.75	34.98	3.51	1.19	33.79	1.64	0.67	40.61	**	**	**	**	**	**
Enset	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Other Permanent	0.49	0.24	48.33	**	**	**	**	**	**	**	**	**	-	-	-
TOTAL PERMANENT	12.80	4.49	35.09	5.19	1.63	31.41	2.87	1.16	40.30	**	**	**	**	**	**
ALL CROPS	363.89	56.83	15.62	279.13	43.87	15.54	**	**	**	24.91	5.22	20.94	8.06	3.32	41.22

Table 3.9

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer, their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

GAMBELA

[illegible]

Table 3.10

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

HARARI

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	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	8.44	1.47	17.48	0.83	0.32	38.68	2.93	0.44	15.10	2.20	0.76	34.48	2.47	0.84	33.82
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	0.09	0.04	49.19	**	**	**	0.03	0.01	47.55	**	**	**	**	**	**
Wheat	0.30	0.09	31.08	**	**	**	0.07	0.03	36.74	0.13	0.06	43.32	**	**	**
Maize	3.63	0.63	17.42	0.31	0.10	32.94	1.37	0.23	16.95	0.84	0.27	31.58	1.11	0.39	35.05
Sorghum	4.41	0.81	18.48	0.41	0.15	36.45	1.46	0.24	16.07	1.21	0.46	38.00	1.32	0.44	33.06
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
PULSES	0.09	0.04	43.34	**	**	**	**	**	**	**	**	**	**	**	**
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickpeas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	0.09	0.04	43.34	**	**	**	**	**	**	**	**	**	**	**	**
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	0.28	0.10	36.51	**	**	**	0.18	0.07	37.44	-	-	-	**	**	**
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	0.28	0.10	36.51	**	**	**	0.18	0.07	37.44	-	-	-	**	**	**
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.12	0.04	36.51	**	**	**	0.07	0.03	38.64	-	-	-	**	**	**
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Other Temporary	0.08	0.03	40.09	-	-	-	0.05	0.02	41.63	-	-	-	**	**	**
ALL TEMPORARY	8.93	1.48	16.59	0.90	0.35	39.23	3.21	0.46	14.32	2.21	0.76	34.25	2.61	0.87	33.22
Chat	4.10	0.83	20.20	0.37	0.14	37.12	1.33	0.25	18.52	1.23	0.48	38.99	1.17	0.39	33.07
Coffee	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	**	**	**	-	-	-	**	**	**	-	-	-	**	**	**
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	4.18	0.83	19.76	0.38	0.14	37.16	1.39	0.25	17.84	1.23	0.48	38.87	1.17	0.39	32.97
ALL CROPS	13.11	2.28	17.42	1.28	0.49	37.87	4.60	0.69	14.99	3.45	1.23	35.68	3.78	1.24	32.94

Table 3.11

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).

ADDIS ABABA

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	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	17.66	1.87	10.59	0.50	0.11	21.45	0.13	0.03	25.60	16.97	1.89	11.11	0.05	0.03	49.97
Teff	12.03	1.22	10.13	0.17	0.05	29.45	0.03	0.01	39.52	11.80	1.22	10.33	0.02	0.01	46.92
Barley	**	**	**	**	**	**	**	**	**	0.02	0.01	48.60	**	**	**
Wheat	5.50	0.81	14.72	0.26	0.06	22.49	0.09	0.03	35.98	5.14	0.81	15.70	**	**	**
Maize	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Sorghum	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	0.93	0.24	25.31	0.19	0.05	25.76	**	**	**	0.66	0.20	30.45	**	**	**
Horsebeans	**	**	**	0.01	0.00	44.26	-	-	-	**	**	**	**	**	**
Chickpeas	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Peas	0.27	0.07	27.46	0.08	0.03	38.00	**	**	**	0.16	0.05	29.96	-	-	-
Lentils	0.37	0.11	29.44	0.06	0.02	31.67	**	**	**	0.29	0.10	34.68	-	-	-
Vetch	0.21	0.06	29.99	0.03	0.01	30.56	**	**	**	0.17	0.06	37.68	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.18	0.07	35.98	0.01	0.01	46.39	-	-	-	0.17	0.06	37.95	-	-	-
Fenugreek	0.04	0.01	29.64	0.01	0.00	44.16	-	-	-	0.03	0.01	35.07	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	0.14	0.07	46.64	**	**	**	-	-	-	0.13	0.06	48.13	-	-	-
ALL TEMPORARY	18.77	2.00	10.66	0.71	0.12	17.61	0.18	0.04	22.19	17.80	1.97	11.07	0.09	0.04	47.24
Chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CROPS	18.77	2.00	10.66	0.71	0.12	17.61	0.18	0.04	22.19	17.80	1.97	11.07	0.09	0.04	47.24

Table 3.12

Estimates of Quantity of Commercial Fertilizer Applied by type of Fertilizer,
their Standard Error and Coefficient of Variation, for Private Peasant Holdings, 1996/97 (1989 E.C.).
DIRE DAWA

VARIABLE	Total Quantity			Quantity of Dap			Quantity of Urea			Quantity of Dap & Urea			Quantity of Com. with Nat		
	Estimate ('000 HA)	S.E. (⁰ 000)	C.V. (%)	Estimate (⁰ 00 HA)	S.E. (⁰ 000)	C.V. (%)	Estimate (⁰ 00 HA)	S.E. (⁰ 000)	C.V. (%)	Estimate (⁰ 00 HA)	S.E. (⁰ 000)	C.V. (%)	Estimate (⁰ 00 HA)	S.E. (⁰ 000)	C.V. (%)
CEREALS	0.32	0.10	30.86	**	**	**	0.12	0.05	43.96	**	**	**	**	**	**
Teff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maize	**	**	**	-	-	-	**	**	**	-	-	-	-	-	-
Sorghum	0.30	0.10	31.99	**	**	**	0.10	0.05	45.61	**	**	**	**	**	**
Millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PULSES	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Horsebeans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickpeas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haricot Beans	**	**	**	-	-	-	-	-	-	**	**	**	-	-	-
Field Peas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OILSEEDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Neug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundnuts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castore Bean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Temporary	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
ALL TEMPORARY	0.38	0.12	30.59	-	-	-	0.12	0.05	43.93	**	**	**	**	**	**
Chat	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL PERMANENT	**	**	**	**	**	**	**	**	**	-	-	-	-	-	-
ALL CROPS	0.42	0.13	31.35	0.08	0.04	46.61	0.15	0.07	45.12	**	**	**	**	**	**

TABLE 4.1 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

TYPE OF CROP	Local Seed			Improved Seed		
	total (⁰ 000)	s.e (⁰ 000)	c.v (%)	total (⁰ 000)	s.e (⁰ 000)	c.v (%)
CEREALS	4,370.54	171.09	3.91	96.31	10.89	11.31
Teff	1,112.54	65.03	5.84	11.74	2.13	18.17
Barely	1,027.67	99.04	9.64	**	**	**
Wheat	1,095.08	108.40	9.90	63.01	9.41	14.94
Maize	615.18	39.75	6.46	17.88	3.55	19.85
Sorghum	341.97	19.61	5.73	0.55	0.22	40.37
Millet	113.61	16.54	14.56	-	-	-
Oats	64.49	18.97	29.41	-	-	-
PULSES	945.97	55.33	5.85	**	**	**
Horse Beans	426.60	35.37	8.29	**	**	**
Field Peas	185.60	21.57	11.62	-	-	-
Haricot Beans	85.89	18.69	21.76	**	**	**
Chick Peas	114.58	16.54	14.44	**	**	**
Lentils	41.66	6.27	15.04	**	**	**
Vetch	91.64	18.44	20.12	-	-	-
OTHERS	148.64	18.81	12.65	-	-	-
Neug	41.45	5.65	13.64	-	-	-
Lin Seed	75.12	16.30	21.70	-	-	-
Rape seed	**	**	**	-	-	-
Ground Nuts	12.03	5.68	47.17	-	-	-
Sun Flower	1.21	0.58	47.92	-	-	-
Sesame	4.40	2.00	45.43	-	-	-
Fenugreek	7.89	3.19	40.51	-	-	-
Total	5,465.15	205.08	3.75	96.39	10.90	11.31

TABLE 4.2 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

TYPE OF CROP	Local Seed			Improved Seed		
	total (⁰ 000)	s.e (⁰ 000)	c.v (%)	total (⁰ 000)	s.e (⁰ 000)	c.v (%)
CEREALS	311.66	39.76	12.76	**	**	**
Teff	42.33	6.37	15.06	0.95	0.32	33.08
Barely	101.12	23.74	23.48	**	**	**
Wheat	76.71	18.03	23.50	**	**	**
Maize	23.25	5.56	23.93	**	**	**
Sorghum	43.25	7.86	18.18	-	-	-
Millet	24.89	7.52	30.20	-	-	-
Oats	**	**	**	-	-	-
PULSES	24.61	4.50	18.27	-	-	-
Horse Beans	11.93	3.99	33.48	-	-	-
Field Peas	3.01	1.02	34.00	-	-	-
Haricot Beans	**	**	**	-	-	-
Chick Peas	4.00	1.74	43.58	-	-	-
Lentils	3.15	1.38	43.72	-	-	-
Vetch	2.31	0.94	40.53	-	-	-
OTHERS	3.08	1.47	47.72	-	-	-
Neug	**	**	**	-	-	-
Lin Seed	**	**	**	-	-	-
Rape seed	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-
Sesame	**	**	**	-	-	-
Fenugreek	**	**	**	-	-	-
Total	339.35	40.66	11.98	**	**	**

TABLE 4.3 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

AFAR

(Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total (['] 000)	s.e (['] 000)	c.v (%)	total (['] 000)	s.e (['] 000)	c.v (%)
CEREALS	**	**	**	-	-	-
Teff	**	**	**	-	-	-
Barely	**	**	**	-	-	-
Wheat	**	**	**	-	-	-
Maize	0.42	0.21	49.62	-	-	-
Sorghum	**	**	**	-	-	-
Millet	-	-	-	-	-	-
Oats	-	-	-	-	-	-
PULSES	**	**	**	-	-	-
Horse Beans	-	-	-	-	-	-
Field Peas	**	**	**	-	-	-
Haricot Beans	-	-	-	-	-	-
Chick Peas	**	**	**	-	-	-
Lentils	**	**	**	-	-	-
Vetch	-	-	-	-	-	-
OTHERS	**	**	**	-	-	-
Neug	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-
Sesame	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-
Total	**	**	**	-	-	-

TABLE 4.4 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

AMHARA

(Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total (['] 000)	s.e (['] 000)	c.v (%)	total (['] 000)	s.e (['] 000)	c.v (%)
CEREALS	1,257.28	69.05	5.49	32.59	7.26	22.27
Teff	400.63	32.72	8.17	7.06	1.90	26.92
Barely	308.64	35.79	11.59	-	-	-
Wheat	217.10	33.78	15.56	23.10	6.70	29.00
Maize	117.36	9.94	8.47	2.34	0.71	30.23
Sorghum	133.25	14.06	10.55	**	**	**
Millet	67.24	14.16	21.07	-	-	-
Oats	13.07	4.31	32.99	-	-	-
PULSES	389.07	31.67	8.14	**	**	**
Horse Beans	172.96	21.74	12.57	**	**	**
Field Peas	65.05	9.31	14.31	-	-	-
Haricot Beans	12.46	5.92	47.50	-	-	-
Chick Peas	70.49	11.63	16.50	-	-	-
Lentils	21.59	3.80	17.58	-	-	-
Vetch	46.52	10.58	22.75	-	-	-
OTHERS	49.84	8.57	17.20	-	-	-
Neug	20.73	3.64	17.54	-	-	-
Lin Seed	22.11	7.45	33.70	-	-	-
Rape seed	0.77	0.24	31.00	-	-	-
Ground Nuts	-	-	-	-	-	-
Sun Flower	**	**	**	-	-	-
Sesame	**	**	**	-	-	-
Fenugreek	3.02	0.95	31.50	-	-	-
Total	1,696.18	87.92	5.18	32.59	7.26	22.27

TABLE 4.5 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

OROMIYA

(Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total ('000)	s.e ('000)	c.v (%)	total ('000)	s.e ('000)	c.v (%)
CEREALS	2,305.04	145.91	6.33	50.18	7.21	14.37
Teff	559.01	54.40	9.73	2.98	0.86	28.68
Barely	543.39	88.27	16.24	**	**	**
Wheat	654.85	95.89	14.64	34.94	6.34	18.16
Maize	366.66	34.86	9.51	11.62	3.37	29.00
Sorghum	113.64	10.06	8.85	**	**	**
Millet	16.59	3.74	22.56	-	-	-
Oats	50.92	18.47	36.28	-	-	-
PULSES	446.49	43.88	9.83	**	**	**
Horse Beans	197.90	26.89	13.59	-	-	-
Field Peas	92.87	18.50	19.92	-	-	-
Haricot Beans	59.77	17.45	29.20	**	**	**
Chick Peas	37.88	11.62	30.69	-	-	-
Lentils	16.20	4.79	29.57	**	**	**
Vetch	41.87	15.07	36.00	-	-	-
OTHERS	90.95	16.66	18.31	-	-	-
Neug	19.10	4.31	22.57	-	-	-
Lin Seed	51.21	14.47	28.26	-	-	-
Rape seed	**	**	**	-	-	-
Ground Nuts	**	**	**	-	-	-
Sun Flower	**	**	**	-	-	-
Sesame	0.39	0.19	48.65	-	-	-
Fenugreek	**	**	**	-	-	-
Total	2,842.48	175.12	6.16	50.23	7.22	14.38

TABLE 4.6 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

SOMALIE

(Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total ('000)	s.e ('000)	c.v (%)	total ('000)	s.e ('000)	c.v (%)
CEREALS	31.02	4.63	14.92	1.09	0.22	20.57
Teff	**	**	**	-	-	-
Barely	5.87	1.85	31.49	**	**	**
Wheat	4.18	1.75	41.98	**	**	**
Maize	9.43	1.77	18.72	0.46	0.12	26.61
Sorghum	11.26	2.35	20.89	**	**	**
Millet	-	-	-	-	-	-
Oats	0.23	0.11	48.22	-	-	-
PULSES	0.56	0.21	36.54	**	**	**
Horse Beans	**	**	**	-	-	-
Field Peas	-	-	-	-	-	-
Haricot Beans	**	**	**	-	-	-
Chick Peas	0.12	0.05	44.17	**	**	**
Lentils	**	**	**	-	-	-
Vetch	-	-	-	-	-	-
OTHERS	**	**	**	-	-	-
Neug	-	-	-	-	-	-
Lin Seed	**	**	**	-	-	-
Rape seed	-	-	-	-	-	-
Ground Nuts	**	**	**	-	-	-
Sun Flower	-	-	-	-	-	-
Sesame	-	-	-	-	-	-
Fenugreek	**	**	**	-	-	-
Total	31.72	4.69	14.80	1.09	0.23	20.71

TABLE 4.7 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)
BENHANGUL-GUMEZ (Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total (⁰ 000)	s.e (⁰ 000)	c.v (%)	total (⁰ 000)	s.e (⁰ 000)	c.v (%)
CEREALS	28.89	7.21	24.97	**	**	**
Teff	**	**	**	-	-	-
Barely	**	**	**	-	-	-
Wheat	**	**	**	-	-	-
Maize	6.09	0.80	13.07	**	**	**
Sorghum	9.56	2.48	25.98	-	-	-
Millet	1.91	0.77	40.50	-	-	-
Oats	**	**	**	-	-	-
PULSES	**	**	**	-	-	-
Horse Beans	**	**	**	-	-	-
Field Peas	**	**	**	-	-	-
Haricot Beans	**	**	**	-	-	-
Chick Peas	0.09	0.04	44.29	-	-	-
Lentils	**	**	**	-	-	-
Vetch	-	-	-	-	-	-
OTHERS	3.17	0.76	24.12	-	-	-
Neug	1.56	0.40	25.88	-	-	-
Lin Seed	**	**	**	-	-	-
Rape seed	-	-	-	-	-	-
Ground Nuts	0.94	0.42	44.27	-	-	-
Sun Flower	-	-	-	-	-	-
Sesame	**	**	**	-	-	-
Fenugreek	-	-	-	-	-	-
Total	34.55	8.40	24.30	**	**	**

TABLE 4.8 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)
S.N.N.P.R. (Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total (⁰ 000)	s.e (⁰ 000)	c.v (%)	total (⁰ 000)	s.e (⁰ 000)	c.v (%)
CEREALS	412.05	38.91	9.44	6.47	1.51	23.37
Teff	95.80	11.69	12.20	0.71	0.29	40.53
Barely	65.49	12.87	19.65	-	-	-
Wheat	133.68	32.82	24.55	2.56	1.18	46.17
Maize	90.09	15.21	16.88	3.19	0.83	25.88
Sorghum	23.95	3.15	13.15	**	**	**
Millet	2.98	1.36	45.63	-	-	-
Oats	**	**	**	-	-	-
PULSES	79.56	10.51	13.21	-	-	-
Horse Beans	42.46	6.21	14.63	-	-	-
Field Peas	24.03	5.92	24.65	-	-	-
Haricot Beans	12.33	3.08	25.01	-	-	-
Chick Peas	0.59	0.26	44.34	-	-	-
Lentils	**	**	**	-	-	-
Vetch	**	**	**	-	-	-
OTHERS	0.30	0.10	33.76	-	-	-
Neug	-	-	-	-	-	-
Lin Seed	0.07	0.03	37.72	-	-	-
Rape seed	**	**	**	-	-	-
Ground Nuts	-	-	-	-	-	-
Sun Flower	**	**	**	-	-	-
Sesame	-	-	-	-	-	-
Fenugreek	**	**	**	-	-	-
Total	491.92	43.20	8.78	6.47	1.51	23.37

TABLE 4.9 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

GAMBELA

(Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total (⁰⁰⁰)	s.e (⁰⁰⁰)	c.v (%)	total (⁰⁰⁰)	s.e (⁰⁰⁰)	c.v (%)
CEREALS	1.20	0.25	20.97	0.03	0.01	49.60
Teff	-	-	-	-	-	-
Barely	-	-	-	-	-	-
Wheat	-	-	-	-	-	-
Maize	0.71	0.24	33.23	**	**	**
Sorghum	0.49	0.14	28.59	-	-	-
Millet	**	**	**	-	-	-
Oats	-	-	-	-	-	-
PULSES	-	-	-	-	-	-
Horse Beans	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-
Haricot Beans	-	-	-	-	-	-
Chick Peas	-	-	-	-	-	-
Lentils	-	-	-	-	-	-
Vetch	-	-	-	-	-	-
OTHERS	0.02	0.01	30.51	-	-	-
Neug	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-
Ground Nuts	**	**	**	-	-	-
Sun Flower	-	-	-	-	-	-
Sesame	0.02	0.01	36.71	-	-	-
Fenugreek	-	-	-	-	-	-
Total	1.23	0.25	20.56	0.03	0.01	49.60

TABLE 4.10 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

HARARI

(Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total (⁰⁰⁰)	s.e (⁰⁰⁰)	c.v (%)	total (⁰⁰⁰)	s.e (⁰⁰⁰)	c.v (%)
CEREALS	3.57	0.27	7.64	0.01	-	38.28
Teff	**	**	**	-	-	-
Barely	**	**	**	-	-	-
Wheat	0.14	0.04	29.73	-	-	-
Maize	1.10	0.42	10.97	0.01	-	38.28
Sorghum	2.27	0.20	8.60	-	-	-
Millet	-	-	-	-	-	-
Oats	-	-	-	-	-	-
PULSES	0.02	0.01	37.52	-	-	-
Horse Beans	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-
Haricot Beans	0.02	0.01	39.95	-	-	-
Chick Peas	-	-	-	-	-	-
Lentils	-	-	-	-	-	-
Vetch	-	-	-	-	-	-
OTHERS	1.07	0.26	24.48	-	-	-
Neug	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-
Ground Nuts	1.07	0.26	24.48	-	-	-
Sun Flower	-	-	-	-	-	-
Sesame	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-
Total	4.65	0.39	8.47	0.01	-	38.28

TABLE 4.11 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

ADDIS ABABA

(Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total ('000)	s.e ('000)	c.v (%)	total ('000)	s.e ('000)	c.v (%)
CEREALS	8.49	0.88	52.66	0.12	0.02	19.80
Teff	4.03	0.38	9.55	0.03	0.01	47.61
Barely	0.32	0.14	45.73	-	-	-
Wheat	4.07	0.58	14.17	0.09	0.02	19.60
Maize	0.01	**	42.30	-	-	-
Sorghum	0.06	0.03	80.53	-	-	-
Millet	-	-	-	-	-	-
Oats	**	**	**	-	-	-
PULSES	2.78	0.41	14.71	-	-	-
Horse Beans	0.27	0.09	33.72	-	-	-
Field Peas	0.05	0.02	36.89	-	-	-
Haricot Beans	**	**	**	-	-	-
Chick Peas	1.09	0.23	21.31	-	-	-
Lentils	0.45	0.09	20.43	-	-	-
Vetch	0.92	0.14	14.84	-	-	-
OTHERS	0.07	0.01	19.76	-	-	-
Neug	-	-	-	-	-	-
Lin Seed	**	**	**	-	-	-
Rape seed	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-
Sesame	-	-	-	-	-	-
Fenugreek	0.06	0.01	22.33	-	-	-
Total	11.35	1.26	58.07	0.12	0.02	19.80

TABLE 4.12 ESTIMATES OF QUANTITY OF SEED APPLIED BY TYPE OF SEED
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION
1996/97(1989 E.C.)

DIRE DAWA

(Quintal)

TYPE OF CROP	Local Seed			Improved Seed		
	total ('000)	s.e ('000)	c.v (%)	total ('000)	s.e ('000)	c.v (%)
CEREALS	1.94	0.14	7.45	-	-	-
Teff	-	-	-	-	-	-
Barely	-	-	-	-	-	-
Wheat	**	**	**	-	-	-
Maize	0.07	0.03	38.82	-	-	-
Sorghum	1.86	0.14	7.72	-	-	-
Millet	-	-	-	-	-	-
Oats	-	-	-	-	-	-
PULSES	0.03	0.01	42.54	-	-	-
Horse Beans	-	-	-	-	-	-
Field Peas	-	-	-	-	-	-
Haricot Beans	0.03	0.01	42.54	-	-	-
Chick Peas	-	-	-	-	-	-
Lentils	-	-	-	-	-	-
Vetch	-	-	-	-	-	-
OTHERS	-	-	-	-	-	-
Neug	-	-	-	-	-	-
Lin Seed	-	-	-	-	-	-
Rape seed	-	-	-	-	-	-
Ground Nuts	-	-	-	-	-	-
Sun Flower	-	-	-	-	-	-
Sesame	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-
Total	1.97	0.15	7.47	-	-	-

TABLE 5.1

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

NATIONAL

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)
Illiterate	6,811.39	126.76	1.86	64.74	3.70	5.71	80.94	12.88	15.91	260.39	23.64	9.08	2,049.62	73.66	3.59
Grades 1 - 3	1,181.30	33.79	2.86	16.66	1.61	9.66	18.19	1.10	6.03	36.77	3.29	8.94	398.15	16.70	4.22
Grades 4 - 6	675.94	22.35	3.31	14.26	0.45	3.17	8.80	0.39	4.43	40.95	3.74	9.14	262.49	13.73	5.23
Grades 7 - 8	255.49	10.30	4.03	5.43	0.09	1.71	1.95	0.02	1.23	16.04	0.64	4.01	99.24	6.07	6.12
Grades 9 - 11	100.68	4.10	4.07	2.06	-	0.15	**	**	**	7.53	0.47	6.26	47.01	1.75	3.72
Grade 12 complete	45.68	1.93	4.22	0.49	-	-	**	**	**	1.14	-	-	20.54	1.86	9.08
Higher Education	14.72	0.52	3.52	0.01	-	-	-	-	-	-	-	-	3.31	0.04	1.30
Not-States	0.70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	9,085.91	133.55	1.47	103.64	4.06	3.92	109.95	12.93	11.76	362.83	24.17	6.66	2,878.36	77.05	2.68

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TABLE 5.2

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

TIGRAY

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)
Illiterate	504.72	61.73	12.23	6.96	2.37	34.05	6.79	2.28	33.57	**	**	**	129.25	27.18	21.03
Grades 1 - 3	90.68	13.80	15.22	**	**	**	3.38	1.50	44.29	**	**	**	23.32	6.36	27.27
Grades 4 - 6	17.15	3.80	22.16	**	**	**	-	-	-	**	**	**	7.21	2.80	38.78
Grades 7 - 8	**	**	**	**	**	**	-	-	-	-	-	-	**	**	**
Grades 9 - 11	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Grade 12 complete	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Higher Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not-States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	615.78	57.25	9.30	9.74	2.69	27.65	10.17	2.67	26.28	**	**	**	161.60	27.07	16.75

TABLE 5.3

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

AFAR

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)
Illiterate	30.01	10.45	34.84	-	-	-	**	**	**	**	**	**	**	**	**
Grades 1 - 3	4.88	2.19	44.82	-	-	-	-	-	-	**	**	**	-	-	-
Grades 4 - 6	1.75	0.68	38.68	-	-	-	-	-	-	-	-	-	**	**	**
Grades 7 - 8	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Grades 9 - 11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grade 12 complete	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Higher Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not-Styled	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	36.74	10.33	28.12	-	-	-	**	**	**	**	**	**	**	**	**

TABLE 5.4

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

AMHARA

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)
Illiterate	2,129.72	69.24	3.25	13.88	2.26	16.27	33.87	8.28	24.46	29.08	7.21	24.80	503.29	37.26	7.40
Grades 1 - 3	429.45	22.68	5.28	6.88	1.59	23.18	4.10	1.10	26.77	**	**	**	130.15	10.74	8.25
Grades 4 - 6	95.84	7.27	7.59	1.75	0.81	46.25	1.45	0.17	11.44	2.85	0.66	22.99	31.86	4.78	15.00
Grades 7 - 8	16.78	2.10	12.51	1.14	0.33	29.10	-	-	-	-	-	-	4.26	0.35	8.14
Grades 9 - 11	7.91	0.94	11.95	-	-	-	-	-	-	-	-	-	**	**	**
Grade 12 complete	4.64	1.30	28.07	-	-	-	-	-	-	-	-	-	**	**	**
Higher Education	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Not-Styled	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2,685.90	73.23	2.73	23.65	2.68	11.32	39.42	8.24	20.90	33.29	7.26	21.81	671.27	39.06	5.82

TABLE 5.5

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

OROMIYA

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)
Illiterate	2,510.51	76.57	3.05	24.74	1.48	6.00	19.27	3.50	18.14	132.34	16.01	12.10	771.57	49.42	6.41
Grades 1 - 3	415.56	18.76	4.51	4.98	0.10	2.10	8.65	0.96	11.07	26.60	3.25	12.22	150.46	10.35	6.88
Grades 4 - 6	311.31	14.46	4.65	7.22	0.40	5.52	2.25	-	-	24.86	3.14	12.62	114.27	7.40	6.48
Grades 7 - 8	137.20	7.90	5.76	2.80	0.02	0.58	-	-	-	10.49	0.59	5.62	49.03	3.67	7.49
Grades 9 - 11	55.31	3.40	6.14	1.44	0.48	33.10	-	-	-	4.74	0.47	9.89	23.86	0.94	3.93
Grade 12 complete	18.23	0.87	4.79	**	**	**	-	-	-	0.45	-	-	6.54	0.81	12.41
Higher Education	6.32	0.26	4.11	-	-	-	-	-	-	-	-	-	1.37	0.04	2.79
Not-States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	3,454.43	80.61	2.33	41.65	1.54	3.70	30.18	3.63	12.01	199.48	16.65	8.35	1,117.10	51.18	4.58

TABLE 5.6

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

SOMALIE

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)	Estimate ('000)	s.e ('000)	c.v (%)
Illiterate	75.79	12.01	15.84	8.62	3.09	35.85	**	**	**	**	**	**	**	**	**
Grades 1 - 3	7.16	2.75	38.32	0.70	0.34	48.30	-	-	-	**	**	**	**	**	**
Grades 4 - 6	1.09	0.38	35.24	**	**	**	**	**	**	-	-	-	**	**	**
Grades 7 - 8	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Grades 9 - 11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grade 12 complete	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Higher Education	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Not-States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	85.04	11.70	13.76	9.45	3.08	32.54	**	**	**	**	**	**	**	**	**

TABLE 5.7

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

BENHANGUL-GUMEZ

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)
Illiterate	62.17	10.11	16.27	**	**	**	**	**	**	**	**	**	7.42	2.63	35.39
Grades 1 - 3	11.22	2.60	23.19	-	-	-	-	-	-	-	-	-	0.92	0.43	46.91
Grades 4 - 6	7.54	1.73	22.89	**	**	**	-	-	-	-	-	-	**	**	**
Grades 7 - 8	1.84	0.73	39.50	-	-	-	-	-	-	-	-	-	**	**	**
Grades 9 - 11	1.32	0.50	38.16	-	-	-	-	-	-	-	-	-	**	**	**
Grade 12 complete	1.09	0.50	45.96	-	-	-	-	-	-	-	-	-	**	**	**
Higher Education	**	**	**	-	-	-	-	-	-	-	-	-	**	**	**
Not-Stated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	85.33	9.14	10.72	**	**	**	**	**	**	**	**	**	9.79	2.66	27.16

TABLE 5.8

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

S.N.N.P.R.

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)
Illiterate	1,467.10	65.18	4.44	9.95	0.30	3.01	**	**	**	62.07	11.80	19.02	624.02	35.53	5.69
Grades 1 - 3	217.48	14.40	6.62	2.68	0.96	35.97	**	**	**	7.19	0.75	10.50	89.30	6.69	7.49
Grades 4 - 6	237.88	15.37	6.46	4.38	1.34	30.67	4.94	0.39	7.84	12.03	2.21	18.33	106.68	10.67	10.00
Grades 7 - 8	95.18	6.36	6.68	0.58	-	-	1.91	-	-	5.53	1.15	20.77	43.50	4.96	11.40
Grades 9 - 11	35.10	2.52	7.18	0.58	-	-	-	-	-	2.76	1.12	40.64	22.14	1.91	8.64
Grade 12 complete	21.53	1.90	8.83	-	-	-	-	-	-	**	**	**	12.63	1.87	14.83
Higher Education	6.47	0.35	5.36	-	-	-	-	-	-	-	-	-	1.94	0.02	1.03
Not-Stated	0.70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2,081.44	68.78	3.30	18.17	1.33	7.32	25.53	9.04	35.41	90.27	12.04	13.33	900.21	38.03	4.22

TABLE 5.9

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

GAMBELA

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)
Illiterate	6.35	1.09	17.22	0.13	0.05	39.00	-	-	-	**	**	**	**	**	**
Grades 1 - 3	1.67	0.44	26.52	**	**	**	-	-	-	-	-	-	-	-	-
Grades 4 - 6	1.64	0.42	25.45	**	**	**	-	-	-	**	**	**	-	-	-
Grades 7 - 8	0.44	0.10	22.68	**	**	**	-	-	-	-	-	-	**	**	**
Grades 9 - 11	0.19	0.06	31.01	**	**	**	-	-	-	-	-	-	-	-	-
Grade 12 complete	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Higher Education	**	**	**	**	**	**	-	-	-	-	-	-	-	-	-
Not-States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	10.33	1.04	10.06	0.31	0.07	24.09	-	-	-	**	**	**	**	**	**

TABLE 5.10

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

HARARI

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)	Estimate (⁰ 000)	s.e (⁰ 000)	c.v (%)
Illiterate	9.29	1.11	11.90	0.10	0.04	40.75	0.48	0.14	28.86	0.72	0.21	29.21	4.59	0.79	17.23
Grades 1 - 3	1.34	0.22	16.03	**	**	**	0.08	0.04	46.27	0.22	0.07	31.05	0.72	0.15	21.17
Grades 4 - 6	1.03	0.16	15.92	-	-	-	**	**	**	0.26	0.07	28.23	0.62	0.14	22.69
Grades 7 - 8	0.23	0.06	27.20	-	-	-	**	**	**	**	**	**	0.14	0.05	34.45
Grades 9 - 11	**	**	**	-	-	-	**	**	**	**	**	**	**	**	**
Grade 12 complete	0.08	0.04	45.70	-	-	-	**	**	**	-	-	-	**	**	**
Higher Education	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Not-States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	12.05	1.01	8.39	0.12	0.04	37.09	0.69	0.15	21.73	1.23	0.22	18.30	6.18	0.77	12.45

TABLE 5.11

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

ADDIS ABABA

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)
Illiterate	4.00	0.51	12.69	0.08	0.03	38.24	**	**	**	**	**	**	3.18	0.50	15.64
Grades 1 - 3	0.56	0.10	17.71	**	**	**	-	-	-	0.04	0.02	39.53	0.45	0.10	21.63
Grades 4 - 6	0.32	0.06	18.48	**	**	**	-	-	-	0.03	0.01	40.08	0.30	0.06	19.89
Grades 7 - 8	0.22	0.04	18.10	-	-	-	**	**	**	-	-	-	0.14	0.03	24.57
Grades 9 - 11	0.12	0.03	27.22	-	-	-	-	-	-	-	-	-	0.07	0.03	41.62
Grade 12 complete	0.07	0.02	26.64	**	**	**	-	-	-	-	-	-	0.05	0.02	30.35
Higher Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not-States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	5.29	0.48	9.02	0.11	0.03	30.52	**	**	**	0.14	0.04	30.04	4.18	0.48	11.54

TABLE 5.12

ESTIMATES OF HOLDERS WHO APPLIED AGRICULTURAL PRACTICES IN THEIR FIELDS BY EDUCATIONAL ATTAINMENT
THEIR STANDARD ERROR AND COEFFICIENT OF VARIATION,
1996/97(1989 E.C.)

DIRE DAWA

EDUCATION	All Holders			Holders Who Applied											
				Improved Seed			Irrigation			Pesticide			Fertilizer		
	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)	Estimate (['] 000)	s.e (['] 000)	c.v (%)
Illiterate	11.74	1.63	13.92	0.13	0.05	40.62	1.07	0.29	27.47	0.49	0.16	32.98	1.79	0.42	23.29
Grades 1 - 3	1.30	0.29	22.13	-	-	-	0.11	0.05	43.05	**	**	**	0.51	0.21	41.62
Grades 4 - 6	0.39	0.09	23.35	**	**	**	0.08	0.04	48.54	**	**	**	0.22	0.07	32.72
Grades 7 - 8	0.10	0.05	48.94	-	-	-	-	-	-	-	-	-	**	**	**
Grades 9 - 11	**	**	**	**	**	**	-	-	-	**	**	**	**	**	**
Grade 12 complete	**	**	**	-	-	-	-	-	-	-	-	-	-	-	-
Higher Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not-States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	13.58	1.57	11.55	0.19	0.07	35.05	1.26	0.30	23.48	0.77	0.25	31.84	2.58	0.45	17.52



