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REPORT ON AREA, PRODUCTION AND FARM MANAGEMENT PRACTICE OF BELG SEASON CROPS FOR

PRIVATE PEASANT HOLDINGS

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List of Acronyms

CSA	**Central Statistical Agency**
CV	**Coefficienct of Varietion**
SE	**Standard Errors**
EA	**Enumeration Area**
E.C	**Ethiopian Calencder**
Ha	**Hectare**
Qt	**Quintal**
SNNPR	**Southern Nation Nationalities and Peoples Region**

CHAPTER I

1 INTRODUCTION AND OBJECTIVES OF THE SURVEY

1.1 INTRODUCTION

Agriculture is a dominant sector of Ethiopian economy which makes a lion share contribution to the Gross Domestic Product, employment and foreign exchange earnings. Agriculture is still believed to remain a sector that plays an important role in stimulating the overall economic development of the country in the years to come. This would be realized if and only if strenuous efforts are made by the government and other concerned stakeholders including farmers to increase agricultural production and productivity. Several factors can influence agricultural production and productivity improvement. Among other factors, the increased use of modern farm inputs, modernization of farming activities by using improved farm implements as well as introduction of modern farming technologies to the sector are the major ones. In order identify, plan, implement and monitor agricultural projects and programs, availability of reliable, comprehensive and timely statistical data on the overall performance of the sector is essential.

Central Statistical Agency (CSA) of Ethiopia has been conducting integrated annual agricultural sample surveys and has been providing the survey results to the ultimate data users for more than three decades. Out of the annual agricultural sample surveys carried out by the CSA, Belg season agricultural sample survey is the one that generates data on crop cultivated area, production and farm management practice for the major Belg season crops for the private peasant holdings annually. In the previous years, two reports were use to be generated from the Belg agricultural sample survey nearly simultaneously which are named as a report on area and production and report on farm management practices. Since the year 2013/14 (2006 E.C.), the Belg season agricultural sample survey findings are compliled and produced in only one report with the basic idea of making the report user friendly and handy. The report contained the data on crop cultivated area and production as well as farm management practices of the private peasant holdings of the major Belg crops.

The findings of the 2014/15 (2007 E.C) Belg survey are summarized and presented using tables and graphs at national and regional levels.

1.2 OBJECTIVES OF THE SURVEY

There are two main objectives of the 2014/15 (2007 E.C.) Belg season agricultural sample survey. These are to generate basic quantitative information on:

- Crop cultivated area, production and yield of major Belg season crops and
- The use of different farm management practices that includes fertilizer applied area by crop type, the type and quantity of fertilizers used, areas applied with improved seeds and indegineous seeds, areas applied with pesticide, areas under irrigation, and areas under extension package by crop type and category.

Given the objectives, the survey findings are presented in such a way that, first crop cultivated area and production is discussed and then followed by farm management practice findings, subsequently.

CHAPTER II

2 SURVEY METHODOLOGY, DATA COLLECTION AND PROCESSING

2.1 COVERAGE

The 2014/15 (2007 E.C) Annual Agricultural Sample Survey of the Belg season covered the entire rural parts of the country except the non-sedentary population of the three zones of Afar and six zones of Somali regions. Accordingly, all parts of Harari, Dire Dawa as well as 60 Zones (Special Weredas that are treated as Zones of other regions) are also considered in the survey. The survey was planned to cover a total of nearly 1 492 Enumeration Areas (EAs). However, in 286 EAs among the selected EAs, the survey was not successful due to various reasons. Therefore, the survey was successfully accomplished involving only 1 206 EAs.

2.2 SAMPLING FRAME

The list of Enumeration Areas (EAs) was obtained from the 2007 Population and Housing Census. From the list of the EAs, a set of sampled EAs were selected based on the sample design proposed for the survey. Once the selection of the sampled EAs was accomplished, a fresh list of households within each selected EA was carried out. The list of agricultural households in each EA was used as a sampling frame from which the agricultural households are finally selected as sources of data.

2.3 SAMPLE DESIGN AND SELECTION SCHEME

In order to select the survey sample, a stratified two-stage cluster sample design was implemented. Enumeration areas are the primary sampling units (PSUs) whereas the agricultural households are the Secondary Sampling Units (SSUs). The sample size for the 2014/15 agricultural sample survey was determined by considering both the required level

of precision for the most important estimates within each domain and the amount of resources allocated to the survey. In order to reduce the non-sampling errors, considerable effort was allocated to manage the survey in terms of quality and operational control. With the exception of Harari, and Dire Dawa, each region was taken to be the domain of estimation. Each zone of the regions / special woredas was adopted as a stratum for which major findings of the survey are reported.

Enumeration areas from each stratum were selected systematically using a probability proportional to size sampling technique; size being the number of agricultural households. From the fresh list of households prepared at the beginning of the survey, 30 agricultural households within each sampled EA are selected systematically. The estimation procedures of totals, ratios, sampling error and the measurements of precision of estimates (CV) of the survey are given in Appendix-I, II and III.

2.4 FIELD ORGANIZATION

The Central Statistical Agency (CSA) has 25 statistical branch offices located in different parts of the country. Each branch office has its respective branch head, field supervisors, enumerators, other supporting staffs and drivers. By the year 2014/15 (2007 E.C.), 23 Branch offices are involved in the field operation activities of agricultural sample survey of the Belg season. In order to accomplish the data collection activities, field enumerators are equipped with the necessary survey equipments such as GPS, compass, programmable calculator, measuring tape, questionnaire, …etc. To facilitate the field work of data collection and for field supervision, the branch offices used the available four-wheel drive vehicles. The Addis Ababa and Shire statistical branch offices did not take part on the 2014/15 (2007 E.C) Belg season agricultural sample survey as Belg season farming activities by smallholder private holdings are not practiced in the EAs of the branch offices.

2.5 TRAINING OF THE FIELD STAFF

At the beginning of the survey year, the field staff-training program was carried out for the survey in two-stages. The first stage training was the training of the trainers which was carried out at Adama City for six consecutive days. In the first stage training, the trainers were the staff from the head office while the trainees were branch statistical office heads, statisticians and some field supervisors. The manpower trained in the first stage inturn provided similar trainings for the enumerators and field supervisors for 20 days in the Statistical Branch Offices at the second stage training. During the second-stage training, the trainee were given detailed classroom training on the objectives and uses of the Agricultural Sample Survey (AgSS), concepts and definitions of terms used, the method of area measurement, interviewing procedures,… etc. The second stage training also included a field practice to reinforce the procedures discussed in the classroom, to identify the boundaries of the households included in the EAs and to practice interviewing, area measurement using GPS and compass rope techniques, etc.

2.6 METHODS OF DATA COLLECTION

The agricultural data for 2014/15 Belg season crops were collected from the selected rural agricultural households by interviewing the respondents (subjectively) supported by questionnaire and by measuring physically (objectively) the farm fields (areas) for the selected agricultural households using the equipments such as GPS, compass and measuring tape.

A major characteristic of Ethiopian agriculture is the existence of two well-known crop production seasons named as Meher (main) and Belg (short rain) seasons. Meher is a long rainy season which normally occurs from June to September. The Belg season most often refers to small rainy season which normally occurs from February to May mostly in limited areas of the country. Generally, the Meher season rain provides ideal crop growing moisture for the longer maturing crops.

A point of contention arises with respect to the pure definition of Belg crops. Belg cropping practices are heterogeneous across different parts of the country. The nature of the sowing period also overlaps with some of the Meher season crops. Consequently, the report on Belg Season crops in the past faced a problem of a clearly defined growing period. To help clarify the two-crop season, the following definitions have been used since 1987/88: Belg Season Crops are defined as crops that are harvested during the months of March to August, while crops that are harvested during September to February are considered as Meher season crops.

The time period for data collection on area, production and agricultural practices of the Belg season was from April 15 to May 30/2007 E.C. (May 23 to June 7, 2015). Crop cultivated area data are collected objectively using compass/GPS and measuring tapes, while production data were collected subjective by interviewing the agricultural holders by questionnaire based personal interview. The percentage change of crop yield expected this year relative to the previous year's yield (condition factor) is collected from both agricultural holders and Development Agents (DAs) within each EA to estimate this year's crop yield subjectively. Data on production of Belg season crops are then, computed by the use of the crop cultivated area estimates and the yield data collected from the sampled holders and DAs.

2.7 DATA PROCESSING

a. Editing, Coding and Verification

To insure the quality of the collected data, data editing, coding and verification tasks were conducted at the head office. The number of editors participated in editing was relatively lesser relative to the previous years due to the shortage of data editors and work load of other surveys at the head office during the time of data editing. Therefore, most of the data editing, coding and and entry tasks are accomplished at the branch statistical offices.

b. Data Entry, Cleaning and Tabulation

Before starting data entry, computer edit specifications are prepared for use on personal computers and CSPro software was used for the purpose of data consistency checking. The filled in questionnaire data were entered into personal computers by data encoders of CSA through the use of CSPro. The data enrty task was accomplished at both the head office and the statistical branch offices (that have fully operational data entry system). After the data entry was accomplished, the data were checked for consistency and cleaned using the data cleaning specifications prepared for this purpose. Finally, tabulation was done on personal computers to produce results as indicated in the tabulation plan.

2.8 BASIC CONCEPTS AND DEFINITIONS

For a better understanding of the data presented in this report, the basic concepts and definitions of some technical terms and terminologies used in the collection of the agricultural sample survey data for 2014/15 (2007 E.C.) Belg season are indicated as follows.

Enumeration Area (EA): An Enumeration Area in the rural parts of the country is a locality that is in most cases less than and in some cases equal to a farmers' association in geographical area and usually it consists of 150 to 200 households.

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 provisions for food or other essentials for living. The persons in the group may pool their incomes and have a common budget. 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 as 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.

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, regardless of the title, legal form, size or location.

Holder: A holder is a person who exercises management and control over the operations of the agricultural holding and that makes the major decision regarding the utilization of the available resources. The holder has primary technical and economic responsibility for the holding. The holder may operate the holding directly as an owner or as a manager. Under conditions of traditional agricultural holding, a person may be regarded as a holder when the person operates land or raises livestock in his own right, with or without getting helps from others. In other words, a holder is a person who decides on what, when, where and how to grow crops or raise livestock and the one who has the right to determine the utilization of the products.

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

Field: A field is defined as any plot of land which is a parcel or part of a parcel under the same or mixed crops or any other form of private holding.

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

Meher Season Crops: are those crops that are harvested during September (Meskerem) to February (Yekatit).

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

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

Fertilizer: refers to anything applied to the soil that is intended to increase the amount of plant nutrients available for crop growth. Fertilizers are usually categorized into two which include natural and chemical fertilizers. Examples of natural fertilizers are farmyard manure and wood ashes while that of the chemical fertilizers are DAP (Di-Ammonium Phosphate) and UREA (Ammonium Nitrate).

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

CHAPTER III

3 SUMMARY OF MAJOR FINDINGS OF THE SURVEY

3.1 AREA AND PRODUCTION

The general overview of the 2014/15 (2007 E.C) Belg season agricultural sample survey estimate indicates a total cropland area estimates of about 1 442 439 hectare and production of 33 069 768.66 quintal, which includes grain crops, vegetables and root crops in the estimation. It is important to note that a crop named Mung bean/"Masho" was use to be reported as a cereal crop in the previous reports. In this report it is categorized as a pulse crop which is its proper category. With this background, the main findings of the 2014/15 (2007 E.C.) Belg season crop production sample survey are presented in this Chapter**.**

3.1.1 Grain Crops: refer to a major crop category that includes cereals, pulses and oilseeds, which are not only the major food crops of country and but also are the main sources of household income and sources of the foreign currency earnings. The 2014/15 (2007 E.C) Belg season agricultural sample survey result indicates that a total land area of about 1 174 149.08 hectare was cultivated by the major Belg crops (grains) from which a total grain production of about 8 934 466.27 quintals was estimated at national level. As compared to the production year of 2013/14 (2006 E.C) grain cultivated area and production have decreased by 11.58% and 18.56%, respectively. Out of the total Belg season grain cropland area and production, cereals accounted for the largest percentage interms of both crop cultivated area and production.

Cereals accounted for about 883 968.04 hectares (75.29% of the national Belg grain cropland area) and about 7 595 452.91 quintals (85.01% of the total Belg grain production). Following cereals is pulse crops which accounted for about 261 305.35 hectares (22.25% of the total grain area) and about 1 332 162.15 quintals production (which is 14.91% of the total grain production). Moreover, oilseeds are the other category

of grain crops produced which accounted for an area of 28 875.69 hectares (2.46% of the total grain area) and 6 851.21 quintals of production (0.08% of total grain produced during the Belg season). (For more details, see Summary Table 1).

Summary Table 1: Cropland Area and Production of Major Belg Crops: Private Peasant Holdings, 2014/15 (2007 E.C.), Country Level

Crop Category	Total Cropland Area		Total Production	
	in Hectare	%	In Quintals	%
Cereal……	883 968.04	*78.17*	7 595 452.91	*85.01*
Pulses……	261 305.35	*22.25*	1 332 162.15	*14.91*
Oilseeds……...	28 875.69	*2.46*	6 851.21	*0.08*
Grain crops……	1 174 149.08	*100*	8 934 466.27	*100*

In order to illustrate the overall performance of the 2014/15 (2007 E.C) crop production year, the total estimated cropland area and production of grain crops for private peasant holders for seasons of Belg, Meher as well as for commercial farms are presented in the Summary Table 2. By the year 2014/15 (2007 E.C) the overall grain cultivated area estimate is about 14 344 674.84 hectare (Meher,Belg and Commercial farms).

Summary Table 2: Summary of National Grain Cropland Area and Production of Meher season, Belg Season and Commercial Farms during 2014/15 (2007 E.C.), **Country Level**

	Grain crops Area (Ha)	%	Grain Production(Qt)	%
Meher season private holdings	**12 558 444.55**	**87.55**	**270 396 048.03**	**92.77**
Belg season private holdings	**1 174 149.08**	**8.19**	**8 934 466.27**	**3.07**
Commercial Farms	**612 081.21**	**4.27**	**12 151 038.91**	**4.17**
Grand total	**14 344 674.84**	**100**	**291 481 553.21**	**100**

Out of the total grain area estimated, Belg season grain area accounted for about 1 174 149.08 hectares (8.19% of total grain area) where as Meher season grain area accounted for

about 12 558 444.55 hectare (87.55% of the total grain area cultivated). Commercial farms grain cultivated area is about 612 081.21 hectares (4.27% of the total grain area cultivated).

The total grain crops produced during 2014/15 (2007 E.C) amounts 291 481 553.21 quintals which is increased by 6.21% from the 2013/14 (2006 E.C) total production considering Meher, Belg and commercial farms. Meher season, Belg season and commercial farms account for about 251 536 623.90 Quintals (92.77%), 8 934 466.27 Quintals (3.07%) and 12 151 038.91 Quintals (4.17%) of the total grain production, respectively for the year 2014/15 (2007 E.C).

3.2 ESTIMATES OF THE 2014/15 (2007 E.C) TOTAL CROP LAND AREA AND PRODUCTION OF MAJOR CROPS, MEHER AND BELG SEASONS

For the year 2014/15 (2007 E.C.), the total cropland area cultivated of major crops (grains) of the private peasant holdings during both seasons was estimated to be 13 732 593.63 hectares (commercial not included). Meher season accounts for 12 407 473.46 (91.45%) while Belg season accounts for 1 174 149.08 (8.55%) of grain crops area cultivated during both seasons. The estimated area of grain crops cultivated during both seasons is given in Summary Table 3.

Summary Table 3. Cropland Area under Major Crops for Private Peasant Holdings 2014/15 (2007 E.C.), Both Seasons: Country Level

	Total Grain Cropland Area in Hectares during					
	Meher Season		***Belg Season***		***Both seasons Total***	
Crop Type	***Area in Ha***	***%***	***Area in Ha***	***%***	***Area in Ha***	***%***
Cereal	10 136 489.57	80.76	883 968.04	75.29	11 020 457.61	80.30
Pulses	1 558 422.02	12.42	261 305.35	22.25	1 819 727.37	13.26
Oilseeds	855 737.53	6.82	28875.69	2.46	884 613.22	6.45
Total	12 550 649.12	100	1 174 149.08	100	13 724 798.2	100

As indicated in Summary Table 3, cereals accounted for about 11 020 457.61 hectares (80.30% of the total grain cultivated area) while Pulses and Oil crops accounted for about 1

819 727.37 hectare (13.26%) and 884 613.22 hectares (6.45%) of the total grain cropland area, respectively, in both seasons. Graphical representation of the estimates of total area under major crops for private holdings in Ethiopia for both seasons during 2014/15 (2007 E.C) is indicated using Figure 1 as follows.

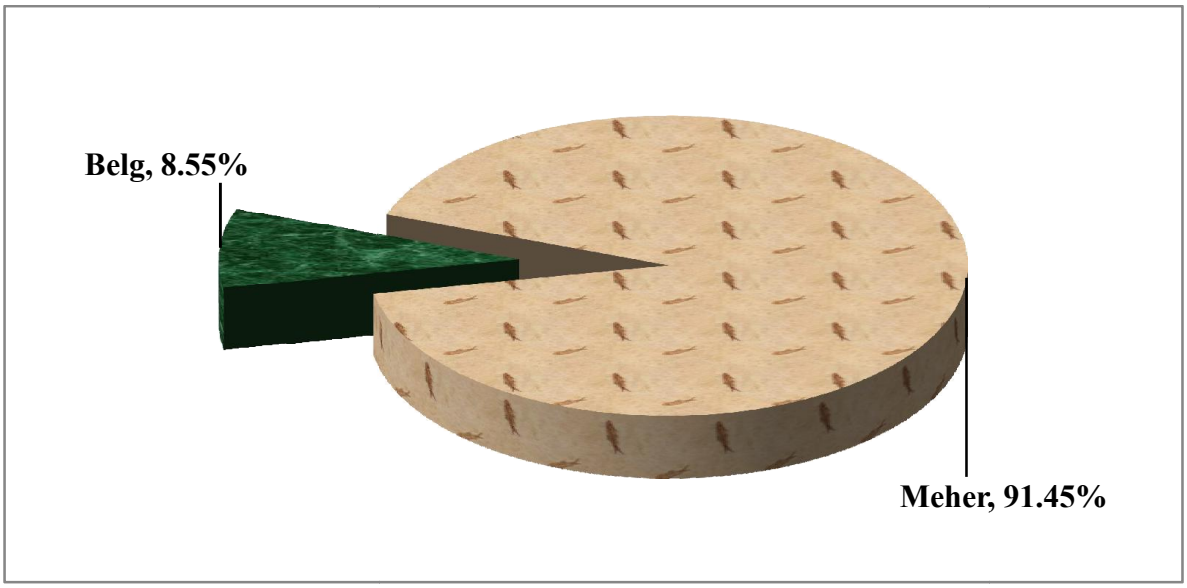

Figure 1 Estimates of Total Area under Major Crops for Private peasant Holdings in Ethiopia for Both Seasons 2014/15 (2007 E.C)

Figure 1 shows that out of the total major crops cultivated area by private peasant holdings during both seasons of 2014/15 (2007 E.C), Belg and Meher seasons account for 8.55% and 91.45%, respectively. Likewise, the overall performance of the major grain crops production estimates for both seasons is illustrated in Summary Table 4.

Summary Table 4. Total Production of Major Crops Harvested by Private Peasant Holdings, 2014/15 (2007 E.C.), Both Seasons: Country Level

Crop Type	*Total Production in Quintals, Harvested during*					
	Meher Season		**Belg Season**		**Both seasons**	
	Production in Quintals	**%**	Production in Quintals	**%**	Production in Quintals	**%**
Cereal	235 903 210.82	87.30	7 595 452.91	85.01	243 498 663.73	87.23
Pulses	26 718 344.54	9.89	1 332 162.15	14.91	28 050 506.69	10.05
Oil crops	7 600 935.18	2.81	6 851.21	0.08	7 607 786.39	2.73
Total	270 222 490.55	100	8 934 466.27	100	279 156 956.81	100

The Summary Table 4 indicate that cereals production accounted for about 243 498 663.73 quintals (87.23% of the total grain crops) produced in both seasons. Pulses and Oil crops account for about 28 050 506.69 quintals (10.05 %) and 7 607 786.39 (2.73%), respectively of the total sum of both seasons.

Moreover, the graphical representation of the estimates of the total production of major crops for private holdings in Ethiopia for both seasons during 2014/15 (2007 E.C) is indicated using Figure 2 bellow.

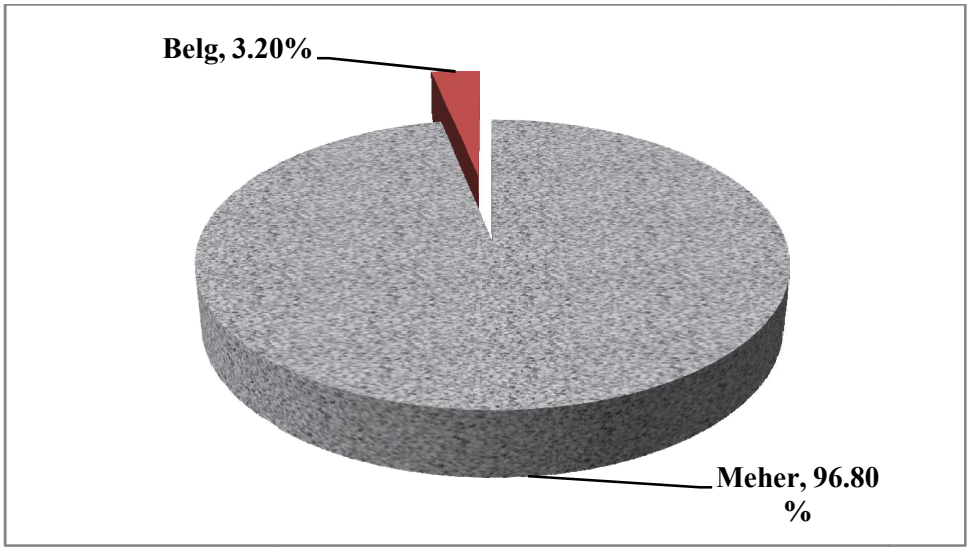

Figure 2 Estimates of Total Production of Major Crops for Private Holdings in Ethiopia for Both Seasons of 2014/15 (2007 E.C)

Figure 2 indicates that out of the total of major grain crops produced by private peasant holdings during both seasons of 2014/15 (2007 E.C), Belg accounts for 3.20% (which is about 8 934 466.27quintals) whereas Meher accounts for 96.80% (about 270 222 490.55quintals).

3.1.3 <u>Vegetables</u>: holders living near to urban centres largely practice vegetable farming. Vegetable farms are not commonly practiced by the rural private peasant holders which is evidenced by the small volume of production recorded as indicated by the survey result. This is better indicated in Figure 3. Vegetables account about 2.89% of the area under all crops at national level during the Belg season. Out of the total area under vegetables, 77.16% and 8.83% are accounted for Ethiopian Cabbage and Tomato, respectively (See Statistical Table 6).

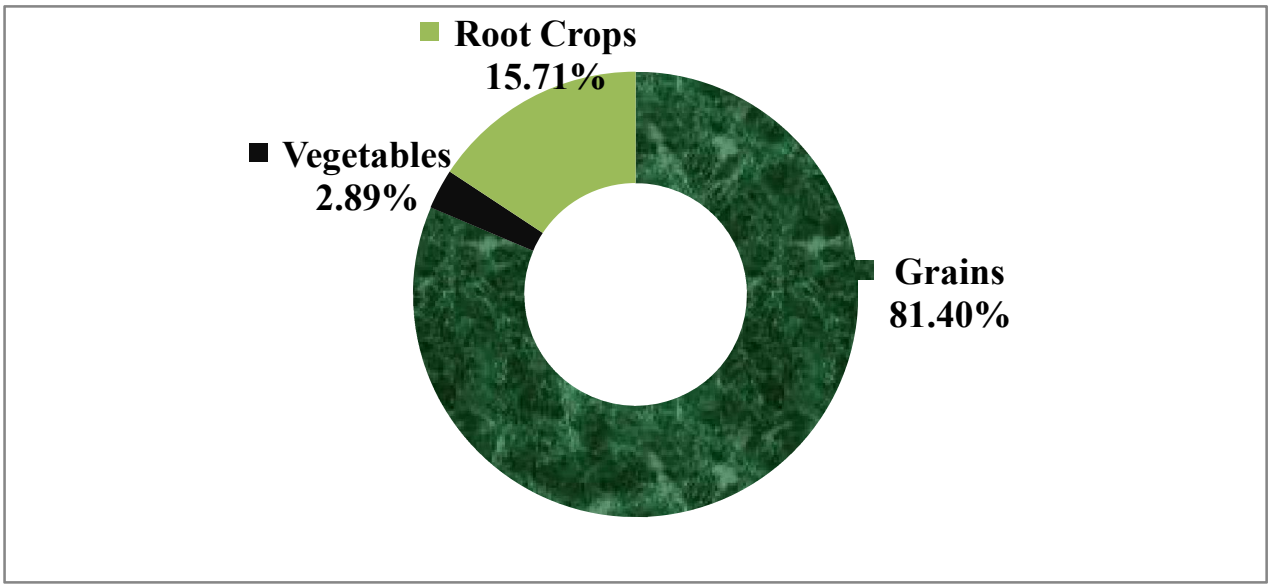

Figure 3*:* ***Percentage of Area under Major Belg Season Crops in 2014/15 (2007E.C), National***

3.1.4. <u>Root Crops</u>: - Root crops such as onion and garlic are indispensable to improve the taste and scent of the food we eat. Other crops like potatoes, sweet potatoes and taro/ Godere are among the major root crops that are consumed in the country. The economic importances of these crops prompt the peasant farm holders to grow many of the root crops as shown in the survey results. For more details, see the statistical Table 5. Root crops

covered nearly 15.71% of the area under all Belg crops in the country. Potatoes, onion and sweet potatoes accounted for 82.33%, 9.29% and 3.67% of the total root crop area cultivated, respectively. Interms of production, potatoes, onion and sweet potatoes accounted for 86.29%, 3.94% and 6.16% of the total root crop production, respectively.

NOTES:

1. Some estimates in all reporting levels are excluded due to high coefficient of variations. Nevertheless, they are incorporated in the total estimates. Hence the sum of the specific estimates may not be equal to the total estimates.

2. Users are also advised to use those estimates with 30-50% coefficient of variation (CV) cautiously

3. Even though area is reported for some crops in some reporting levels, there might be no production data is available for some crops. Such cases are designated by Not Stated (NS). In all tables, if the data are not available, it is labeled as "-".

Statistical Tables Presenting Area and Production Results at National and Regional Levels

Summary Table 5. Estimates of Total Grain Cropland Area and Production for the Meher (main) and Belg (seasons) and Commercial Farms for the Crop Production Year of 2013/14 (2006 E.C), National

Crop Name	Total Cropland Area (Hectare)			All Cropland Area in Hectare	Total Production (Quintal)	
	Meher Private H.	Commercial	Belg Private H.		Meher Private H.	Commercial
Grain Crops.....	**12,550,649.12**	**612,081.21**	**1,174,149.08**	**14,336,879.41**	**270,222,490.55**	**12,151,038.91**
Cereals.....	**10,136,489.57**	**278,786.89**	**883,968.04**	**11,299,244.50**	**235,903,210.82**	**8,992,766.04**
Teff.....	3,016,044.95	6,556.33	88,551.20	3,111,152.48	47,506,572.79	96,082.56
Barley.....	993,899.04	2,260.57	174,489.03	1,170,648.64	19,533,847.83	65,349.37
Wheat.....	1,663,829.53	80,575.60	61,924.04	1,806,329.17	42,315,887.16	2,591,671.37
Maize.....	2,105,543.12	86,909.77	516,144.81	2,708,597.70	72,248,480.89	3,554,695.25
Sorghum.....	1,828,550.09	98,601.62	36,917.84	1,964,069.55	43,319,061.92	2,592,026.29
Finger millet.....	453,908.96	444.89	315.06	454,668.91	9,153,145.18	7,398.42
Oats/'Aja'.....	27,899.64	-	5,384.01	33,283.65	508,059.26	-
Rice.....	46,814.23	3,438.11	*		1,318,155.79	85,542.78
Pulses.....	**1,558,422.02**	**46,072.86**	**261,305.35**	**1,865,800.23**	**26,718,344.54**	**826,522.62**
Horse beans.....	443,067.86	791.18	4,070.08	447,929.12	8,389,353.11	15,559.88
Field peas.....	230,653.56	205.52	15,208.86	246,067.94	3,426,337.10	2,938.75
Haricot beans whit	126,187.43	*	25,800.73		2,021,154.92	*
Haricot beans red..	197,121.28	*	170,930.00		3,116,038.00	*
Chick-peas.....	239,747.51	8,215.79	4,802.86	252,766.16	4,586,822.55	130,763.19
Lentils.....	98,869.15	46.96	8,605.28	107,521.39	1,373,542.40	778.88
Vetch.....	136,883.77	38.70	*		2,514,390.03	695.16
Soya beans.....	35,259.76	24,673.71	*		721,837.45	465,221.30
Fenugreek.....	20,524.36	514.99	1,010.06	22,049.41	251,286.63	6,930.10
Mung bean/"Mash	14,562.00	1,578.26	26,016.81	42,157.07	140,676.54	17,808.76
Gibto.....	15,545.36	5.90	*		176,905.80	66.18
Oil crops.....	**855,737.53**	**287,221.46**	**28,875.69**	**1,171,834.68**	**7,600,935.18**	**2,331,750.25**
Neug.....	252,584.38	999.27	*		2,244,625.07	9,095.22
Linseed.....	82,321.94	563.03	94.33	82,979.30	831,305.05	9,108.17
Groundnuts.....	64,637.20	1,773.78	*		1,037,019.67	31,762.71
Sunflower.....	5,624.69	13.47	*		63,250.64	178.10
Sesame.....	420,487.09	280,422.04	24,668.22	725,577.35	2,887,685.44	2,222,536.55
Rapeseed.....	30,082.24	3,449.87	*		537,049.31	59,069.50
Vegetables.....	**139,449.37**	**6,791.23**	**41,641.19**	187,881.79	**5,947,370.13**	**884,849.36**
Lettuce.....	114.14	201.55	*		*	58,536.83
Head Cabbage.....	4,539.22	204.76	*		289,189.96	47,493.56
Ethiopian Cabbag...	31,305.57	17.94	32,131.25	63,454.76	3,264,465.65	1,756.02
Tomatoes.....	4,996.56	1,645.03	3,677.86	10,319.45	305,405.89	549,615.15
Green peppers.....	5,856.50	150.37	2,066.26	8,073.13	367,144.80	29,646.07
Red peppers.....	92,332.91	4,529.64	422.01	97,284.56	1,706,541.20	196,469.08
Swiss chard.....	304.47	41.93	63.62	410.02	*	1,332.65
Root Crops.....	**216,373.51**	**1,211.27**	**226,648.55**	**444,233.33**	**54,554,893.75**	**301,180.72**
Beetroot.....	1,949.77	3.16	624.51	2,577.44	182,079.42	321.37
Carrot.....	3,697.25	13.24	282.20	3,992.69	142,970.14	839.29
Onion.....	22,767.16	866.31	21,047.61	44,681.08	2,307,451.89	193,067.05
Potatoes.....	67,351.81	180.52	186,595.23	254,127.56	9,217,350.46	37,468.43
Yam/'Boye'.....	3,710.75	-	802.69		*	-
Garlic.....	9,257.61	35.23	7,197.74	16,490.58	934,868.73	5,321.64
Taro/'Godere'.....	48,498.67	2.62	1,779.30	50,280.59	14,443,341.50	720.86
Sweet potatoes.....	59,140.50	110.18	8,319.27	67,569.95	27,001,317.44	63,442.08

Table 5.1. Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

National

Crop Name	Number of Holders	Cropland Area in Hectares	%	Production in Quintals	%	Yield QT/Hec.
Grain Crops.....	**5958394**	**1174149.08**	**100**	**8934466.27**	**100**	**7.61**
Cereals.....	**4840670**	**883968.04**	**75.29**	**7595452.91**	**85.01**	
Teff.....	351269	88551.2	7.54	524729.43	5.87	5.93
Barley.....	846344	174489.03	14.86	1108594.21	12.41	6.35
Wheat.....	224975	61924.04	5.27	669574.65	7.49	10.81
Maize.....	3790697	516144.81	43.96	5050727.64	56.53	9.79
Sorghum.....	220813	36917.84	3.14	168371.17	1.88	4.56
Finger millet.....	5004	315.06	0.03	*	*	
Oats/'Aja'.....	44197	5384.01	0.46	68386.51	0.77	12.7
Rice.....	1233	*	*	*	*	
Pulses.....	**3369917**	**261305.35**	**22.25**	**1332162.15**	**14.91**	
Horse beans.....	79097	4070.08	0.35	15354.83	0.17	3.77
Field peas.....	103354	15208.86	1.3	96436.42	1.08	6.34
Haricot beans white.	411785	25800.73	2.2	141093.4	1.58	5.47
Haricot beans red...	2721231	170930	14.56	938309.53	10.5	5.49
Chick-peas.....	43267	4802.86	0.41	18779.65	0.21	3.91
Lentils.....	57330	8605.28	0.73	*	*	
Vetch.....	*	*	*	*	*	
Soya beans.....	*	*	*	-	-	
Fenugreek.....	14281	1010.06	0.09	1741.44	0.02	1.72
Mung bean/"Masho"...	79023	26016.81	2.22	118592.97	1.33	4.56
Gibto.....	*	*	*	-	-	
Oilseeds.....	**129144**	**28875.69**	**2.46**	**6851.21**	**0.08**	
Neug.....	*	*	*	-	-	
Linseed.....	*	94.33	0.01	*	*	
Groundnuts.....	26144	*	*	-	-	
Sunflower.....	2583	*	*	-	-	
Sesame.....	58019	24668.22	2.1	6822.78	0.08	0.28
Rapeseed.....	*	*	*	-	-	
Vegetables.....	**2572564**	**41641.19**	**100**	**2695255.51**	**100**	**64.73**
Lettuce.....	3312	*	*	*	*	
Head Cabbage.....	90453	*	*	*	*	
Ethiopian Cabbag....	2369577	32131.25	77.16	2265432.93	84.05	70.51
Tomatoes.....	106385	3677.86	8.83	227883.11	8.46	61.96
Green peppers.....	135347	2066.26	4.96	*	*	
Red peppers.....	23918	422.01	1.01	5358.11	0.2	12.7
Swiss chard.....	11999	63.62	0.15	*	*	
Root Crops.....	**4314445**	**226648.55**	**100**	**21440046.88**	**100**	**94.6**
Beetroot.....	55223	624.51	0.28	21478.16	0.1	34.39
Carrot.....	36300	282.2	0.12	13968.21	0.07	49.5
Onion.....	289910	21047.61	9.29	844378.48	3.94	40.12
Potatoes.....	3535194	186595.23	82.33	18499952.45	86.29	99.14
Yam/'Boye'.....	87606	802.69	0.35	119525.8	0.56	148.91
Garlic.....	317065	7197.74	3.18	500462.73	2.33	69.53
Taro/'Godere'.....	145452	1779.3	0.79	120344.3	0.56	67.64
Sweet potatoes.....	260913	8319.27	3.67	1319936.75	6.16	158.66

Table 5.2. Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Tigray

Crop Name	Number of Holders	Cropland Area in Hectares	%	Production in Quintals	%	Yield QT/Hec
Grain Crops.....	**35076**	**5591.9**	**100**	*	*	*
Cereals.....	**34450**	**5491.7**	**98.21**	*	*	
Teff.....	*	*	*	-	-	-
Barley.....	*	*	*	*	*	*
Wheat.....	*	*	*	-	-	-
Maize.....	*	*	*	*	*	*
Sorghum.....	-	-	-	-	-	-
Finger millet.....	-	-	-	-	-	-
Oats/'Aja'.....	-	-	-	-	-	-
Rice.....	-	-	-	-	-	-
Pulses.....	*	*	*	-	-	
Horse beans.....	-	-	-	-	-	-
Field peas.....	*	*	*	-	-	-
Haricot beans white.	-	-	-	-	-	-
Haricot beans red...	-	-	-	-	-	-
Chick-peas.....	-	-	-	-	-	-
Lentils.....	*	*	*	-	-	-
Vetch.....	-	-	-	-	-	-
Soya beans.....	-	-	-	-	-	-
Fenugreek.....	*	*	*	-	-	-
Mung bean/"Masho"...	-	-	-	-	-	-
Gibto.....	-	-	-	-	-	-
Oilseeds.....	-	-	-	-	-	
Neug.....	-	-	-	-	-	-
Linseed.....	-	-	-	-	-	-
Groundnuts.....	-	-	-	-	-	-
Sunflower.....	-	-	-	-	-	-
Sesame.....	-	-	-	-	-	-
Rapeseed.....	-	-	-	-	-	-
Vegetables.....	*	*	*	-	-	-
Lettuce.....	-	-	*	-	-	-
Head Cabbage.....	*	*	*	-	-	-
Ethiopian Cabbag....	-	-	*	-	-	-
Tomatoes.....	-	-	*	-	-	-
Green peppers.....	-	-	*	-	-	-
Red peppers.....	-	-	*	-	-	-
Swiss chard.....	*	*	*	-	-	-
Root Crops.....	**4248**	**331.76**	**100**	*	*	*
Beetroot.....	-	-	-	-	*	-
Carrot.....	*	*	*	-	*	-
Onion.....	*	*	*	*	*	*
Potatoes.....	*	*	*	-	*	-
Yam/'Boye'.....	-	-	-	-	*	-
Garlic.....	-	-	-	-	*	-
Taro/'Godere'.....	-	-	-	-	*	-
Sweet potatoes.....	-	-	-	-	*	-

Table 5.3. Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Afar

Crop Name	Number of Holders	Cropland Area in Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**26155**	**25385.45**	**100**	**589678.42**	**100**	**23.23**
Cereals.....	**26155**	**25313.7**	**99.72**	**589678.42**	**100**	
Teff.....	-	-	-	-	-	
Barley.....	-	-	-	-	-	
Wheat.....	*	*	*	-	-	
Maize.....	26029	25250.3	99.47	589678.42	100	23.35
Sorghum.....	*	*	*	-	-	
Finger millet.....	-	-	-	-	-	
Oats/'Aja'.....	-	-	-	-	-	
Rice.....	-	-	-	-	-	
Pulses.....	*	*	*	-	-	
Horse beans.....	-	-	-	-	-	
Field peas.....	-	-	-	-	-	
Haricot beans white.	*	*	*	-	-	
Haricot beans red...	-	-	-	-	-	
Chick-peas.....	-	-	-	-	-	
Lentils.....	-	-	-	-	-	
Vetch.....	-	-	-	-	-	
Soya beans.....	-	-	-	-	-	
Fenugreek.....	-	-	-	-	-	
Mung bean/"Masho"...	-	-	-	-	-	
Gibto.....	-	-	-	-	-	
Oilseeds.....	*	*	*	-	-	
Neug.....	-	-	-	-	-	
Linseed.....	-	-	-	-	-	
Groundnuts.....	-	-	-	-	-	
Sunflower.....	-	-	-	-	-	
Sesame.....	*	*	*	-	-	
Rapeseed.....	-	-	-	-	-	
Vegetables.....	**2627**	**134.27**	**100**	*	*	*
Lettuce.....	-	-	-	-	*	-
Head Cabbage.....	-	-	-	-	*	-
Ethiopian Cabbag....	-	-	-	-	*	-
Tomatoes.....	1694	*	*	*	*	*
Green peppers.....	1103	*	*	*	*	*
Red peppers.....	966	*	*	*	*	*
Swiss chard.....	-	-	-	-	*	-
Root Crops.....	*	*	*	*	*	*
Beetroot.....	-	-	*	-	*	-
Carrot.....	-	-	*	-	*	-
Onion.....	*	*	*	*	*	*
Potatoes.....	-	-	*	-	*	-
Yam/'Boye'.....	-	-	*	-	*	-
Garlic.....	-	-	*	-	*	-
Taro/'Godere'.....	-	-	*	-	*	-
Sweet potatoes.....	-	-	*	-	*	-

Table 5.4. Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Amhara

Crop Name	Number of Holders	Cropland Area In Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**713814**	**180739.65**	**100**	**659594.5**	**100**	**3.65**
Cereals.....	**610987**	**133120.11**	**73.65**	**513391.11**	**77.83**	
Teff.....	144645	25998.34	14.38	71256.74	10.8	2.74
Barley.....	317057	84629.8	46.82	340448.65	51.61	4.02
Wheat.....	85140	10733.33	5.94	35033.96	5.31	3.26
Maize.....	120177	11139.15	6.16	66254.73	10.04	5.95
Sorghum.....	*	*	*	-	-	-
Finger millet.....	-	-	-	-	-	-
Oats/'Aja'.....	13397	462.43	0.26	397.04	0.06	0.86
Rice.....	-	-	-	-	-	-
Pulses.....	**194681**	**47546.76**	**26.31**	**146203.39**	**22.17**	
Horse beans.....	*	*	*	-	-	-
Field peas.....	21551	*	*	*	*	*
Haricot beans white.	*	*	*	*	*	*
Haricot beans red...	7954	581.9	0.32	*	*	*
Chick-peas.....	39155	4317.43	2.39	18779.65	2.85	4.35
Lentils.....	32619	4010.36	2.22	*	*	*
Vetch.....	*	*	*	*	*	*
Soya beans.....	-	-	-	-	-	-
Fenugreek.....	8164	329.61	0.18	1741.44	0.26	5.28
Mung bean/"Masho"...	78242	25962.41	14.36	118592.97	17.98	4.57
Gibto.....	-	-	-	-	-	-
Oilseeds.....	**4620**	*	*	**-**	**-**	
Neug.....	*	-	-	-	-	-
Linseed.....	*	*	*	-	-	-
Groundnuts.....	*	*	*	-	-	-
Sunflower.....	-	-	-	-	-	-
Sesame.....	-	-	-	-	-	-
Rapeseed.....	*	*	*	-	-	-
Vegetables.....	**33474**	**1280.77**	**100**	**72022.69**	**100**	**56.23**
Lettuce.....	*	*	*	*	*	*
Head Cabbage.....	4149	178.64	13.95	10468.88	14.54	58.6
Ethiopian Cabbag....	9080	*	*	*	*	*
Tomatoes.....	10920	550.69	43	*	*	*
Green peppers.....	2808	*	*	*	*	*
Red peppers.....	11287	315.36	24.62	*	*	*
Swiss chard.....	*	*	*	-	-	-
Root Crops.....	**436967**	**38868.18**	**100**	**1484582.88**	**100**	**38.2**
Beetroot.....	2741	*	*	3187.05	0.21	*
Carrot.....	*	*	*	*	*	*
Onion.....	76293	6674.52	17.17	514614.26	34.66	77.1
Potatoes.....	357172	28507.16	73.34	757017.93	50.99	26.56
Yam/'Boye'.....	-	-	-	-	-	-
Garlic.....	*	*	*	*	*	*
Taro/'Godere'.....	-	-	-	-	-	-
Sweet potatoes.....	-	-	-	-	-	-

Table 5.5. Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Oromia

Crop Name	Number of Holders	Cropland Area In Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**2449952**	**537437.34**	**100**	**4867522.31**	**100**	**9.06**
Cereals.....	**2096187**	**431274.35**	**80.25**	**4292206.57**	**88.18**	
Teff.....	130426	40829.39	7.6	330887.23	6.8	8.1
Barley.....	381057	75080.57	13.97	667948.16	13.72	8.9
Wheat.....	131322	49661.52	9.24	632442.77	12.99	12.74
Maize.....	1647728	239438.79	44.55	2517001.59	51.71	10.51
Sorghum.....	124866	21294.31	3.96	*	*	
Finger millet.....	*	*	*	-	-	-
Oats/'Aja'.....	30229	4890.2	0.91	67989.46	1.4	13.9
Rice.....	*	*	*	-	-	-
Pulses.....	**1232330**	**92358.41**	**17.18**	**575287.32**	**11.82**	
Horse beans.....	32952	2497.73	0.46	12164.76	0.25	4.87
Field peas.....	61353	12322.96	2.29	92982.94	1.91	7.55
Haricot beans white.	333743	18971.38	3.53	130884.04	2.69	6.9
Haricot beans red...	830650	52923.91	9.85	339087.27	6.97	6.41
Chick-peas.....	*	*	*	-	-	-
Lentils.....	*	*	*	*	*	*
Vetch.....	-	-	-	-	-	-
Soya beans.....	*	*	*	-	-	-
Fenugreek.....	3247	*	*	-	-	-
Mung bean/"Masho"...	*	*	*	-	-	-
Gibto.....	-	-	-	-	-	-
Oilseeds.....	**57576**	**13804.57**	**2.57**	*	*	
Neug.....	-	-	-	-	-	-
Linseed.....	*	*	*	*	*	*
Groundnuts.....	*	*	*	-	-	-
Sunflower.....	-	-	-	-	-	-
Sesame.....	21758	13007.86	2.42	-	-	-
Rapeseed.....	*	*	*	-	-	-
Vegetables.....	**664139**	**12481.05**	**100**	**782079.17**	**100**	**62.66**
Lettuce.....	*	*	*	*	*	*
Head Cabbage.....	33355	502.23	4.02	18127.58	2.32	36.09
Ethiopian Cabbag....	566177	9534.36	76.39	656077.42	83.89	68.81
Tomatoes.....	53140	1027.57	8.23	43666.76	5.58	42.5
Green peppers.....	101129	*	*	*	*	*
Red peppers.....	*	*	*	-	-	-
Swiss chard.....	*	*	*	*	*	*
Root Crops.....	**846028**	**67318.4**	**100**	**1012983.8**	**100**	**15.05**
Beetroot.....	30654	405.84	0.6	17336.29	1.71	42.72
Carrot.....	5151	*	*	*	*	*
Onion.....	125823	13163.2	19.55	252415.88	24.92	19.18
Potatoes.....	573832	49373.98	73.34	546316.79	53.93	11.06
Yam/'Boye'.....	*	*	*	-	-	-
Garlic.....	121233	1877.17	2.79	149044.3	14.71	79.4
Taro/'Godere'.....	30811	366.72	0.54	-	-	-
Sweet potatoes.....	60402	2088.88	3.1	47239.23	4.66	22.61

Table 5.6 . Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Somale

Crop Name	Number of Holders	Cropland Area In Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**21626**	**5786.28**	**100**	**50535.25**	**100**	**8.73**
Cereals.....	**21156**	**5159.45**	**89.17**	**50288.04**	**99.51**	
Teff.....	-	-	-	-	-	
Barley.....	-	-	-	-	-	
Wheat.....	-	-	-	-	-	
Maize.....	21156	5107.97	88.28	50288.04	99.51	9.85
Sorghum.....	*	*	*	-	-	
Finger millet.....	-	-	-	-	-	
Oats/'Aja'.....	-	-	-	-	-	
Rice.....	-	-	-	-	-	
Pulses.....	**6254**	*	*	*	*	
Horse beans.....	*	*	*	-	-	
Field peas.....	-	-	-	-	-	
Haricot beans white.	*	*	*	*	*	*
Haricot beans red...	5539	*	*	*	*	*
Chick-peas.....	-	-	-	-	-	
Lentils.....	-	-	-	-	-	
Vetch.....	-	-	-	-	-	
Soya beans.....	-	-	-	-	-	
Fenugreek.....	-	-	-	-	-	
Mung bean/"Masho"...	-	-	-	-	-	
Gibto.....	-	-	-	-	-	
Oilseeds.....	**-**	**-**	**-**	**-**	**-**	
Neug.....	-	-	-	-	-	
Linseed.....	-	-	-	-	-	
Groundnuts.....	-	-	-	-	-	
Sunflower.....	-	-	-	-	-	
Sesame.....	-	-	-	-	-	
Rapeseed.....	-	-	-	-	-	
Vegetables.....	**1461**	**66.77**	**100**	*	*	*
Lettuce.....	-	-	-	-	*	-
Head Cabbage.....	*	*	*	-	*	-
Ethiopian Cabbag....	-	-	-	-	*	-
Tomatoes.....	1419	54.3	81.32	*	*	*
Green peppers.....	1082	12.36	18.51	-	*	-
Red peppers.....	-	-	-	-	*	-
Swiss chard.....	-	-	-	-	*	-
Root Crops.....	*	*	*	*	*	*
Beetroot.....	-	-	*	-	*	-
Carrot.....	*	*	*	-	*	-
Onion.....	*	*	*	*	*	*
Potatoes.....	-	-	*	-	*	-
Yam/'Boye'.....	-	-	*	-	*	-
Garlic.....	*	*	*	-	*	-
Taro/'Godere'.....	-	-	*	-	*	-
Sweet potatoes.....	*	*	*	-	*	-

Table 5.7 Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Benshangul Gumuz

Crop Name	Number of Holders	Cropland Area In Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**26611**	**2983.44**	**100**	**17228.18**	**100**	**5.77**
Cereals.....	**23941**	**1716.12**	**57.52**	**7831.83**	**45.46**	
Teff.....	-	-	-	-	-	
Barley.....	*	*	*	-	-	
Wheat.....	-	-	-	-	-	
Maize.....	23792	1648.21	55.25	7831.83	45.46	4.75
Sorghum.....	247	*	*	-	-	
Finger millet.....	-	-	-	-	-	
Oats/'Aja'.....	-	-	-	-	-	
Rice.....	-	-	-	-	-	
Pulses.....	**23060**	**1266.77**	**42.46**	**9396.35**	**54.54**	
Horse beans.....	*	*	*	-	-	
Field peas.....	-	-	-	-	-	
Haricot beans white.	1271	30.25	1.01	201.94	1.17	6.68
Haricot beans red...	22232	1211.76	40.62	9194.42	53.37	7.59
Chick-peas.....	-	-	-	-	-	
Lentils.....	-	-	-	-	-	
Vetch.....	-	-	-	-	-	
Soya beans.....	-	-	-	-	-	
Fenugreek.....	-	-	-	-	-	
Mung bean/"Masho"...	*	*	*	-	-	
Gibto.....	-	-	-	-	-	
Oilseeds.....	*	*	*	-	-	
Neug.....	-	-	-	-	-	
Linseed.....	*	*	*	-	-	
Groundnuts.....	-	-	-	-	-	
Sunflower.....	-	-	-	-	-	
Sesame.....	-	-	-	-	-	
Rapeseed.....	-	-	-	-	-	
Vegetables.....	**9650**	**120.37**	**100**	**8465.58**	**100**	**70.33**
Lettuce.....	-	-	-	-	-	
Head Cabbage.....	*	*	*	*	*	
Ethiopian Cabbag....	7977	86.54	71.9	5461.8	64.52	63.11
Tomatoes.....	2006	21.07	17.5	*	*	
Green peppers.....	1092	9.48	7.88	398.52	4.71	42.04
Red peppers.....	*	*	*	-	-	
Swiss chard.....	*	*	*	-	-	
Root Crops.....	**7572**	**134.26**	**100**	*	*	
Beetroot.....	-	-	-	*	-	
Carrot.....	-	-	-	*	-	
Onion.....	*	10.86	8.09	*	*	
Potatoes.....	5886	113.37	84.44	-	*	-
Yam/'Boye'.....	-	-	-	*	-	
Garlic.....	1372	7.65	5.7	-	*	-
Taro/'Godere'.....	-	-	-	*	-	
Sweet potatoes.....	330	2.38	1.77	-	*	-

Table 5.8 Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

SNNP

Crop Name	Number of Holders	Cropland Area In Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**2621739**	**405830.73**	**100**	**2666758.25**	**100**	**6.57**
Cereals.....	**1966876**	**272505.11**	**67.15**	**2067966.32**	**77.55**	
Teff.....	63985	18689.34	4.61	122585.47	4.6	6.56
Barley.....	141435	13950.41	3.44	93207.66	3.5	6.68
Wheat.....	5570	860.17	0.21	2097.93	0.08	2.44
Maize.....	1882492	223489.04	55.07	1752572.14	65.72	7.84
Sorghum.....	87633	15057.87	3.71	92433.81	3.47	6.14
Finger millet.....	3945	247.28	0.06	*	*	
Oats/'Aja'.....	*	*	*	-	-	
Rice.....	*	*	*	*	*	
Pulses.....	**1903326**	**119086.13**	**29.34**	**598791.93**	**22.45**	
Horse beans.....	40402	1256.58	0.31	3190.07	0.12	2.54
Field peas.....	19823	491.22	0.12	2150.93	0.08	4.38
Haricot beans white.	44947	1568.79	0.39	*	*	
Haricot beans red...	1848519	115571.82	28.48	586349.81	21.99	5.07
Chick-peas.....	*	*	*	-	-	
Lentils.....	*	*	*	-	-	
Vetch.....	-	-	-	-	-	
Soya beans.....	*	*	*	-	-	
Fenugreek.....	*	*	*	-	-	
Mung bean/"Masho"...	*	*	*	-	-	
Gibto.....	*	*	*	-	-	
Oilseeds.....	**65460**	**14239.5**	**3.51**	**-**	**-**	
Neug.....	*	*	*	-	-	
Linseed.....	*	*	*	-	-	
Groundnuts.....	19666	*	*	-	-	
Sunflower.....	2583	*	*	-	-	
Sesame.....	34798	10912.8	2.69	-	-	
Rapeseed.....	*	*	*	-	-	
Vegetables.....	**1853410**	**27338.13**	**100**	**1818152.17**	**100**	**66.51**
Lettuce.....	*	*	*	-	-	
Head Cabbage.....	*	*	*	*	*	
Ethiopian Cabbag....	1785203	22335.76	81.7	1589962.44	87.45	71.18
Tomatoes.....	*	*	*	*	*	
Green peppers.....	25423	*	*	*	*	
Red peppers.....	10459	*	*	*	*	
Swiss chard.....	*	*	*	*	*	
Root Crops.....	**3004762**	**119108.55**	**100**	**18914363.84**	**100**	**158.8**
Beetroot.....	21530	144.42	0.12	954.81	-	6.61
Carrot.....	*	181.43	0.15	11488.17	0.06	63.32
Onion.....	79773	759.61	0.64	53914.37	0.29	70.98
Potatoes.....	2588257	107874.14	90.57	17196617.74	90.92	159.41
Yam/'Boye'.....	86219	798.49	0.67	119525.8	0.63	149.69
Garlic.....	154997	*	*	*	*	
Taro/'Godere'.....	114617	1409.79	1.18	120320.86	0.64	85.35
Sweet potatoes.....	198378	6182.15	5.19	1268038.57	6.7	205.11

Table 5.9 Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Gambela

Crop Name	Number of Holders	Cropland Area In Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**43709**	**9129.74**	**100**	**69106.12**	**100**	**7.57**
Cereals.....	**42737**	**8357.26**	**91.54**	**62283.34**	**90.13**	
Teff.....	*	*	*	-	-	-
Barley.....	*	*	*	-	-	-
Wheat.....	-	-	-	-	-	-
Maize.....	42655	8298.78	90.9	62283.34	90.13	7.51
Sorghum.....	-	-	-	-	-	-
Finger millet.....	*	*	*	-	-	-
Oats/'Aja'.....	-	-	-	-	-	-
Rice.....	*	*	*	-	-	-
Pulses.....	*	*	*	-	-	
Horse beans.....	-	-	-	-	-	-
Field peas.....	-	-	-	-	-	-
Haricot beans white.	-	-	-	-	-	-
Haricot beans red...	*	*	*	-	-	-
Chick-peas.....	-	-	-	-	-	-
Lentils.....	-	-	-	-	-	-
Vetch.....	-	-	-	-	-	-
Soya beans.....	-	-	-	-	-	-
Fenugreek.....	-	-	-	-	-	-
Mung bean/"Masho"...	-	-	-	-	-	-
Gibto.....	-	-	-	-	-	-
Oilseeds.....	**1313**	**742.91**	**8.14**	**6822.78**	**9.87**	
Neug.....	-	-	-	-	-	-
Linseed.....	-	-	-	-	-	-
Groundnuts.....	*	*	*	-	-	-
Sunflower.....	-	-	-	-	-	-
Sesame.....	1313	732.17	8.02	6822.78	9.87	9.32
Rapeseed.....	-	-	-	-	-	-
Vegetables.....	*	*	*	*	*	*
Lettuce.....	-	-	*	-	*	-
Head Cabbage.....	-	-	*	-	*	-
Ethiopian Cabbag....	*	*	*	*	*	*
Tomatoes.....	*	*	*	*	*	*
Green peppers.....	-	-	*	-	*	-
Red peppers.....	-	-	*	-	*	-
Swiss chard.....	-	-	*	-	*	-
Root Crops.....	*	*	*	*	*	*
Beetroot.....	-	-	*	-	*	-
Carrot.....	-	-	*	-	*	-
Onion.....	-	-	*	-	*	-
Potatoes.....	-	-	*	-	*	-
Yam/'Boye'.....	-	-	*	-	*	-
Garlic.....	*	*	*	-	*	-
Taro/'Godere'.....	*	*	*	*	*	*
Sweet potatoes.....	*	*	*	*	*	*

Table 5.10 Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Harari

Crop Name	Number of Holders	Cropland Area In Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**17384**	**1082.75**	**100**	**6342.36**	**100**	**5.86**
Cereals.....	**15855**	**849.5**	**78.46**	**4106.41**	**64.75**	
Teff.....	-	-	-	-	-	
Barley.....	-	-	-	-	-	
Wheat.....	-	-	-	-	-	
Maize.....	10290	*	*	4106.41	64.75	*
Sorghum.....	6119	271.18	25.05	-	-	
Finger millet.....	-	-	-	-	-	
Oats/'Aja'.....	-	-	-	-	-	
Rice.....	-	-	-	-	-	
Pulses.....	**8123**	**233.25**	**21.54**	*	*	
Horse beans.....	-	-	-	-	-	
Field peas.....	-	-	-	-	-	
Haricot beans white.	*	*	*	*	*	
Haricot beans red...	5996	*	*	*	*	
Chick-peas.....	-	-	-	-	-	
Lentils.....	-	-	-	-	-	
Vetch.....	-	-	-	-	-	
Soya beans.....	-	-	-	-	-	
Fenugreek.....	-	-	-	-	-	
Mung bean/"Masho"...	-	-	-	-	-	
Gibto.....	-	-	-	-	-	
Oilseeds.....	**-**	**-**	**-**	**-**	**-**	
Neug.....	-	-	-	-	-	
Linseed.....	-	-	-	-	-	
Groundnuts.....	-	-	-	-	-	
Sunflower.....	-	-	-	-	-	
Sesame.....	-	-	-	-	-	
Rapeseed.....	-	-	-	-	-	
Vegetables.....	**3895**	*	*	**-**	**-**	**-**
Lettuce.....	-	-	*	-	-	
Head Cabbage.....	*	*	*	-	-	
Ethiopian Cabbag....	*	*	*	-	-	
Tomatoes.....	*	*	*	-	-	
Green peppers.....	*	*	*	-	-	
Red peppers.....	-	-	*	-	-	
Swiss chard.....	-	-	*	-	-	
Root Crops.....	**9716**	*	*	*	*	*
Beetroot.....	*	*	*	-	*	-
Carrot.....	-	-	*	-	*	-
Onion.....	*	*	*	-	*	-
Potatoes.....	7458	*	*	-	*	-
Yam/'Boye'.....	-	-	*	-	*	-
Garlic.....	-	-	*	-	*	-
Taro/'Godere'.....	-	-	*	-	*	-
Sweet potatoes.....	*	*	*	*	*	*

Table 5.11 Cropland Area, Production and Yield of Belg Crops For Private Peasant Holdings For Belg Season 2014/15 (2007 E.C.)

Diredawa

Crop Name	Number of Holders	Cropland Area In Hectares	%	Production In Quintals	%	Yield QT/Hec
Grain Crops.....	**2327**	**181.8**	**100**	**-**	**-**	**-**
Cereals.....	**2327**	**180.76**	**99.43**	**-**	**-**	
Teff.....	-	-	-	-	-	-
Barley.....	*	*	*	-	-	-
Wheat.....	-	-	-	-	-	-
Maize.....	2327	174.54	96.01	-	-	-
Sorghum.....	-	-	-	-	-	-
Finger millet.....	-	-	-	-	-	-
Oats/'Aja'.....	-	-	-	-	-	-
Rice.....	-	-	-	-	-	-
Pulses.....	*	*	*	-	-	
Horse beans.....	-	-	-	-	-	-
Field peas.....	-	-	-	-	-	-
Haricot beans white.	-	-	-	-	-	-
Haricot beans red...	*	*	*	-	-	-
Chick-peas.....	-	-	-	-	-	-
Lentils.....	-	-	-	-	-	-
Vetch.....	-	-	-	-	-	-
Soya beans.....	-	-	-	-	-	-
Fenugreek.....	-	-	-	-	-	-
Mung bean/"Masho"...	-	-	-	-	-	-
Gibto.....	-	-	-	-	-	-
Oilseeds.....	*	*	*	-	-	
Neug.....	-	-	-	-	-	-
Linseed.....	-	-	-	-	-	-
Groundnuts.....	-	-	-	-	-	-
Sunflower.....	-	-	-	-	-	-
Sesame.....	*	*	*	-	-	-
Rapeseed.....	-	-	-	-	-	-
Vegetables.....	**2472**	**80.99**	**100**	**-**	**-**	**-**
Lettuce.....	-	-	-	-	-	-
Head Cabbage.....	-	-	-	-	-	-
Ethiopian Cabbag....	-	-	-	-	-	-
Tomatoes.....	2045	54.24	66.97	-	-	-
Green peppers.....	*	*	*	-	-	-
Red peppers.....	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-
Root Crops.....	*	*	*	-	-	-
Beetroot.....	-	-	*	-	-	-
Carrot.....	-	-	*	-	-	-
Onion.....	*	*	*	-	-	-
Potatoes.....	*	*	*	-	-	-
Yam/'Boye'.....	-	-	*	-	-	-
Garlic.....	-	-	*	-	-	-
Taro/'Godere'.....	-	-	*	-	-	-
Sweet potatoes.....	465	8.11	*	-	-	-

CHAPTER IV

4 FARM MANAGEMENT PRACTISES OF THE 2014/15 (2007 E.C) BELG SEASON

4.1 INTRODUCTION

The observed experiences indicate that farmers' attitude and tendency towards adoption and acceptance of new innovations, modern agricultural techniques and technologies such as the use of fertilizers, irrigation and improved seeds have positive impact on the development of agricultural sector as a whole. In this regard, the extent of adoption of modern agricultural practices such as utilization of fertilizer, irrigation, pesticides and improved seeds by the private peasant farm holders is often used as important indicators for estimating the rate and extent of modern technologies used in the country's agriculture. The magnitude and level modern/improved farm management practices in the agricultural sector are used to be the sole indicators of the transformation rate of the country's traditional agriculture to modern agriculture.

The overview of the 2014/15 (2007 E.C) Belg season farm management practice of the country indicates that the total quantity of chemical fertlizers applied during the season has also decreasd by 3.77% (from 584 431 quintals in 2006 E.C to 562 423 quintals in the 2007 E.C), at national level. Similarly, the total improved seed applied area decreased by about 25.14% (from 76 213 hectares in 2006 E.C to about 57 056 hectares in 2007 E.C). Interms of quantity, the total improved seeds applied has decreased by about 20% which is a change from 23 744 quintals in 2006 E.C to 18 994 quintals in 2007 E.C).

Given this background, in Chapter four, the quantitative information about the use of modern agricultural inputs for Belg season crops of 2014/5 (2007 E.C.) of the private peasant holdings are presented both at country and regional levels. Furthermore, the general composition of the farm holders surveyed applying inputs interms of age group, holders applying inputs by educational status and the number of holders and the damaged crop land

area in hectare are summarized and and presented in this Chapter. The data are generated from the findings of Belg season agricultural sample survey conducted by the Central Statistical Agency of Ethiopia in May 2015.

4.2 SUMMARY OF THE FARM MANAGEMENT PRACTICES OF THE 2014/15 (2007 E.C) BELG SEASON AGRICULTURAL SAMPLE SURVEY

According to the 2014/15 (2007 E.C.) Belg Season Crop Production Sample Survey, total cropland area estimated is about 1 442 439 hectares of land while the estimated number of holders engaged in crop production activity is about 9 436 376 at national level. For more illustration see summary Table 6 bellow.

Table 6. **Total Cropland Area and Number of Holders Engaged in 2014/15 (2007 E.C.) Belg Season Crop Production**

Total Belg Cropland Area in Hectare	1 442 439
Number of Belg Crop Producing Holders	9 436 376
Improved Farm Management practiced Area (in Hectare)	1 311 004
Quantity of Commercial Fertilizer Applied (Quintals)	562 423

As indicated Table 6, during 2014/15 (2007 E.C.), out of the total area under Belg season crops, 1 311 004 hectares (90.89% of the total cropland area) was under the use of improved farm management practices that includes fertilizer, improved seed, pesticides, irrigation and extension services. Moreover, it was estimated that about 562 423 quintals of chemical fertilizer was utilized for crop production nationally. The total cropland areas categorized into different types of farm management practices for the season are summarized in Table 7.

Table 7. Belg Season Cropland Area under Different Farm Management Practices for Production Year of 2014/15 (2007 E.C), National Level

Farm Management Practice Category	Cropland Area Under Different Farm Management Practices (Hectare)	Percentage from Total Cropland Area
Fertilizer	**656 140**	**45.49**
Improved Seeds	**57 056**	**3.96**
Pesticides	**145 026**	**10.05**
Irrigation	**148 132**	**10.27**
Extension	**304 650**	**21.12**

As shown in Table 7 above, the total crop land area estimated is 656 140 Hectare for fertilizer, 57 056 Hectare for improved seed,145 026 Hectare for pesticide, 148 132 Hectare for irrigation and 304 650 Hectare for extension. Out of the total Belg cropland area, the percentage distribution is 45.49% for fertilizer, 3.96% for improved seed, 10.05% for pesticides, 10.27% for irrigation and 21.12% for extension serveces. Furthermore, the survey findings indicate that cereals account for the largest share of the different farm management practices observed as summarized in Table 8.

Table 8. Summary of Cropland Area under Improved Farm Management Practices for Private Peasant Holdings, 2014/15 (2007 E.C.) Belg season, National

Crop Category	Cropland Area			
	Total Area		Area under Improved Farm MGT Practice.	
	Hectare	%	Hectare	% (of total)
Cereals	883 968	61.28	550 681	38.17
Pulses	261 305	18.12	128 285	8.89
Oil crops	28 876	2.00	6 776	0.47
Total	1 174 149	81.40	685742	47.54

As indicated in summary Table 8 above, estimates of total cropland area under different farm management practices shows that cereals accounted 883 968 hectares (61.28% of the total all cropland areal), followed by pulses with 261 305 hectares (18.12% from the total all cropp land area). Root crops, vegetables and oil crops accounted for 226 649 hectare (15.71%), 226 649 hectares (2.88%) and 28 876 hectare (2%), respectively. Out of the total cereal cultivated cropland area, 550 681 hectare (38.17% of the total cropland area) is cultivated with improved farm management practices (includes all fertilizer, improved seed, pesticides and irrigation). The respective numbers are 128 285 hectare (8.89%) for pulses, 6 776 hectare (0.47%) for oil crops. The corresponding figures for vegetables and root crops can be refered from the statistical tables.

4.3 FERTLIZER APPLIED AREA AND FERTLIZER TYPE USED

The results of the survey indicate that Belg season cropland area under both natural and chemical fertilizers were estimated to be 656 140 hectares, covering 45.49% of the total area under Belg seasons crops of the private holdings. The percentage of different fertilizers applied is given using summary Table 9 as follows.

Table 9. Summary of Fertilizer Applied Cropland Area for Private Holdings of 2014/15 (2007 E.C.) Belg season, National

Fertilizer Type	Fertilizer Applied Area		%ge from Total Belg Cropland Area
	Hectare	%ge of Fertilizer Applied Area	
Natural	273 318	41.66	18.95
Commercial			
Dap	232 217	35.39	16.10
Urea	23 785	3.62	1.65
Dap+Urea	126 819	19.33	8.79
Total	656 140	100	56.02

As indicated in Summary Table 9, nearly 266 834 hectares (41.66% of the total fertilizer applied cropland area) is applied with natural fertilizer. This accounts 18.95% of the total Belg cropland area. The coverage of chemical fertilizers is estimated to be 382 821 hectares (56.34% from the total fertilizer applied area and 26.54% from the total cropland area). The application of DAP, UREA and the mixture of and DAP and Urea (Dap+Urea), called as commercial fertilizers, constitute 35.39%, 3.62% and 19.33% of the total fertilizer applied cropland area, respectively. The percentages of Dap, Urea and the mixture of Dap and Urea applied out of the total cropland area of the Belg season are: 16.10%, 1.65% and 8.79%, respectively.

4.4 THE USE OF NATURAL FERTLIZER

In general, the application of natural fertilizers for Belg season crops in 2014/15 (2007 E.C.) vary from crop to crop. Of the total area under natural fertilizer, the highest proportion was reported for maize crop, which was estimated at 95 532 hectares (34.95%). The fertilized area (natural fertilizer) under potato stood second with 55 981 hectare (20.48%) while red haricot beans stands third accounting for 40 126 hectare (14.68%) of the total country level natural fertilizer applied of Belg season cropland area.

4.5. THE USE OF COMMERCIAL FERTLIZERS

The total cropland area under commercial fertilizers is about 382 822 hectare (58.34% of total fertilizer applied cropland area), in 2014/15 (2007 E.C.) Belg season. Out of this, DAP is the most used fertilizer which accounted for about 232 217 hectare (60.66% of the commercial fertilizer applied area). The second most applied commercial fertilizer is the mixture of Dap and Urea (DAP+UREA) covering 126 819 hectare (accounting for 33.13%) while the use of Urea stands in the third position applied on 23 785 hectare (6.21%) of the total commercial fertilizer applied area. This is more indicated using Figure 5.

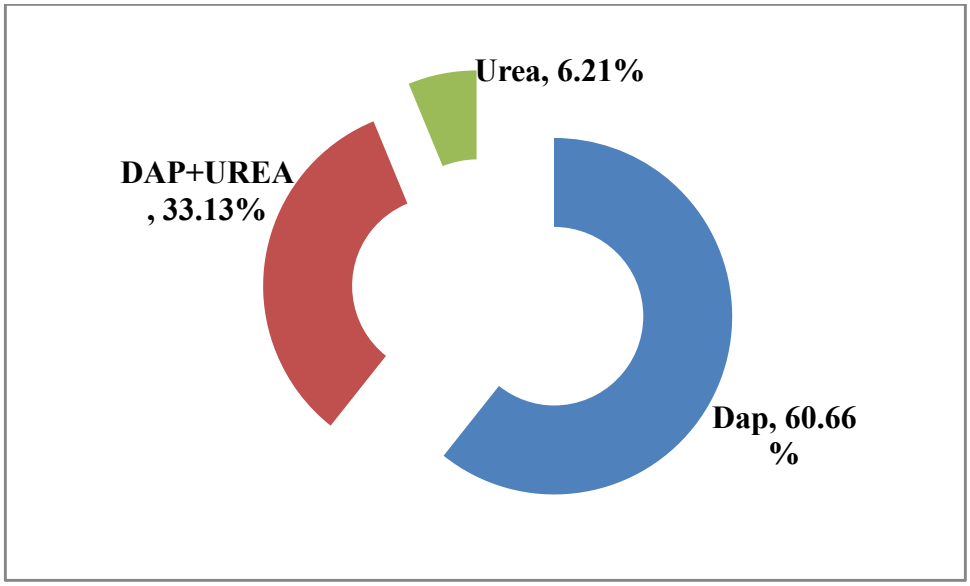

Figure 4 Percentage Distribution of Chemical Fertilizer Applied Cropland Area by Fertilizer Type for Private Holdings of Belg 2014/15 (2007 E.C)

The commercial fertilizers applied area vary between crops. The highest area is reported for potatoes accounting for 111 193 hectares (29.05%) followed by maize which is 72 167 hectares (18.85% of commercial fertilizer applied area), which is more illustrated in the statistical table.

Region-wise, the distribution of both natural and commercial fertilizers applied varies from region to region. For instance, of the total area under both (Natural + Commercial) fertilizers, the highest was reported for S.N.N.P region accounting for nearly 287 490 hectare (43.82% of total fertilized area).

Oromia region accounted for 279 875 hectares (42.65%) of the total country level of both natural and commercial fertilizers applied cropland area) while Amhara region accounted nearly 83 103 hectare (12.67%). In terms of quantity, the total commercial fertilizer applied is 562 423 quintals. Out of this, Dap is the most applied commercial fertilizer accounting for 273 165 quintals (49%). The percentage distribution of the chemical fertilizer applied during the production season is more indicated by Figure 6.

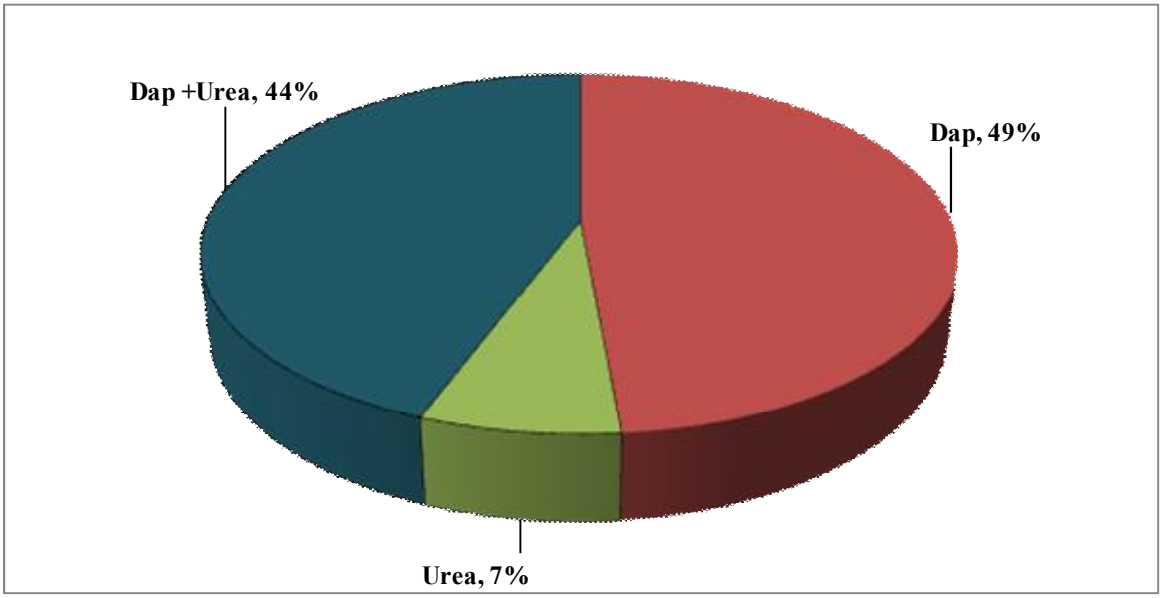

Figure 5. Percentage Distribution of Quantity of Chemical Fertilizers Applied by Fertilizer Type for Private Holding of 2014/15 (2007 E.C) Belg Season, National

As indicated in Figure 6, application of the mixture of Dap and Urea (Dap + Urea) is the second most applied fertilizer type which is about 248 817 quintals (44%) while Urea is the least type of chemical fertilizer applied accounting about 40 441 quintals (7%).

4.6. THE USE OF IMPROVED SEEDS

Better application of improved variety seeds helps to harvest higher yield compared to the use of traditional variety seeds. The survey findings indicate that the total crop area applied with improved seed is nearly 57 056 hectare while total quantity used is 18 994 quintals, at country

level. The area applied with improved seed is about 3.96% of the total Belg 2007 E.C cropland area. The total quantity of improved seeds used is nearly 2.15% of the total seeds used during the season.

4.7. NUMBER OF BELG CROP PRODUCING HOLDERS REPORTING THE USE OF IMPROVED FARM MANAGEMENT PRACTICES BY AGE

To easily identify the age category of the holders who used to earn the economic benefits generated from practicing the use of modern farm management practices on their holdings, Belg crop producing holders' have been categorized into nine groups. These are age groups below 18 years, 18 to 20 years, 21 to 24 years, 25 to 29 years, 30 to 39 years, 40 to 49 years, 50 to 59 years, 60 years and above as well as not stated holders groups. The survey result shows that a total of 9 436 376 holders were engaged in the overall Belg season agricultural activities in 2014/15 (2007 E.C.). Accordingly, the category with the largest number of holders is in the age group 30-39, with 2 473 584 holders (which is 26.21% of the total holders). The age group of 40 to 60 stands second with is 2 160 515 holders (22.90% of total holders). The number and percentage distribution of Belg crop producing holders reporting the use of farm inputs by age group for private holding is given in Table 21.

Moreover, 3 147 074 holders (33.35% of total households) used fertilizer and 522 287 holders (5.53%) used improved seeds. Likewise, 726 666 holders (7.70%) applied pesticides and 807 875 holders (8.56%) used irrigation at national level for 2014/15 (2007 E.C) Belg season, in order to obtain higher crop yield (See Table 21). Generally, nearly 55.15% of the the total holders practiced the use of various farm management practices. The percentages of holder categorized by the use of various modern farm inputs are re-presented using Figure 7.

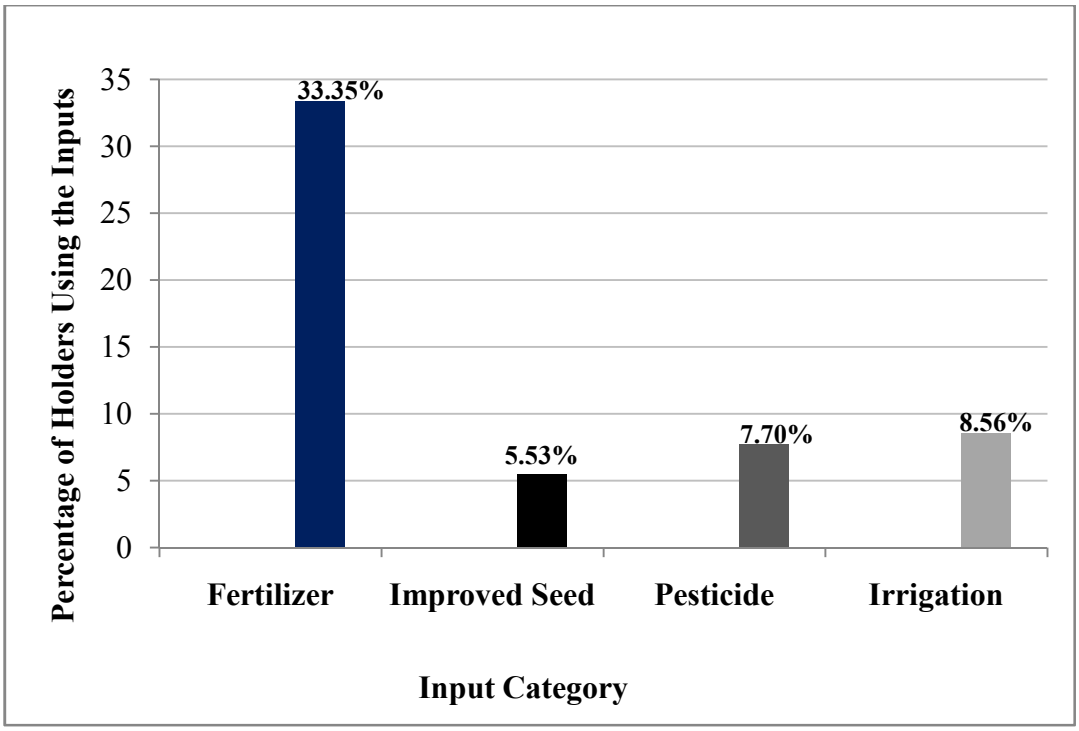

Figure 6. Graphical Representation of Percentage of Holders Using Inputs for Belg 2014/15(2007 E.C)

4.7 NUMBER OF BELG CROP PRODUCING HOLDERS REPORTING THE USE OF IMPROVED FARM MANAGEMENT PRACTICES BY EDUCATIONAL STATUS

Holders educational status play important role in the adoption of new and improved farming technologies. Therefore, in this report, an attempt is made to categorize holders reporting the use of modern farming practices during the 2014/15 (2007 E.C) Belg season crop production based on their educational status. Based on their education level, holders are categorized in to eight groups consisting of illiterate, literate, grade 1 to 3, grade 4 to 6, grade 7 to 8, grade 9 to 11, grade 12 complete and above grade. The number of Belg crop producing holders using different farm inputs based on education is graphically presented in Figure 8.

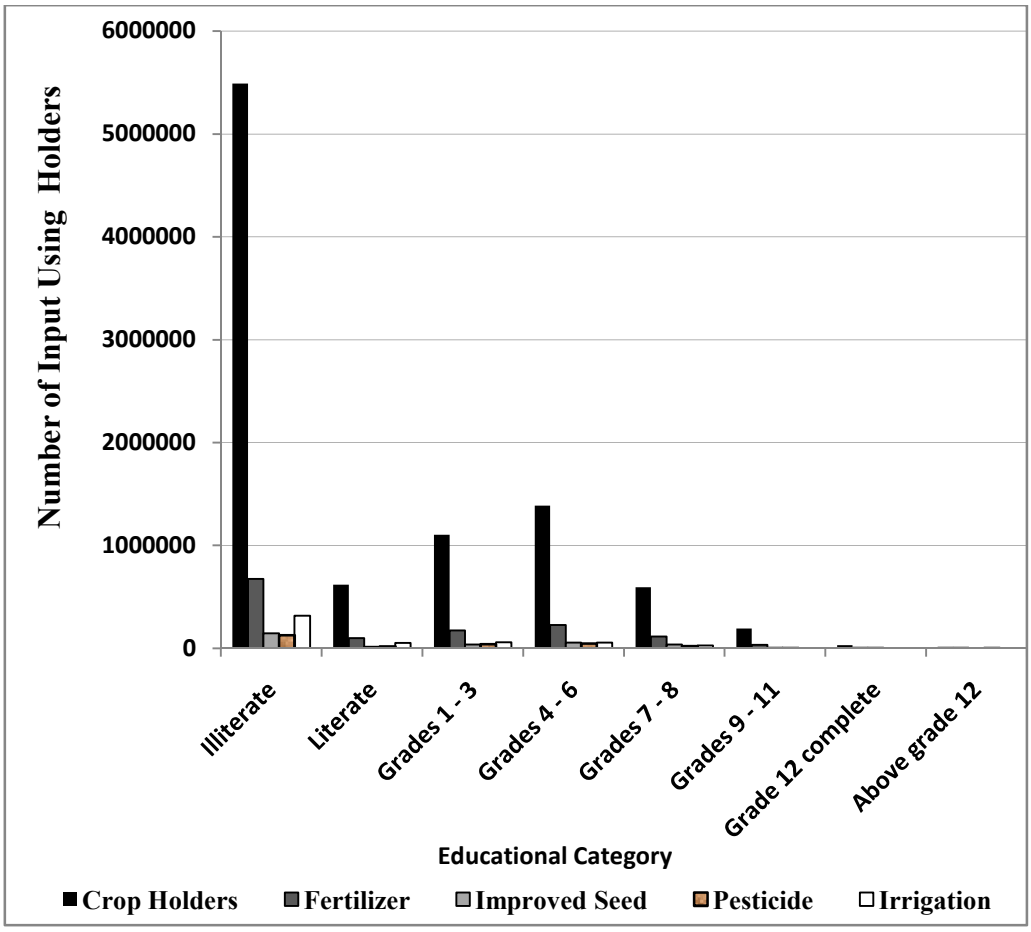

Figure 7. Number of Holders Using Different Inputs by Educational status, 2014/15 (2007 E.C), Belg Season

According to the results of the 2014/15 (2007 E.C) Belg season crop production sample survey, out of the total number of holders (9 436 376), the largest category of the holders number is under the illiterate category in which the number of all crop holders is 5 488 401 (which accounts for 58.16% of total holders) (See Figure 8). Under this category, 675 291 holder are reported for using fertilizer, 144 762 holders using improved seeds, 126 187 using pesticides and 319 121 using irrigation. The second largest category of the number of holders lies on education level of grade four to six. Within this category, the number of holders reported for using all cropland is 1 388 279. The respective number of holders is 228 038 for fertilizer, 55 567 for improved seeds, 45 912 for pesticides and 55869 for irrigation in the education category.

4.8 NUMBER OF HOLDERS REPORTING CROP DAMAGE BY CAUSES OF DAMAGE

The total number of Belg crop producing private peasant holders who reported crop damage and the cause of damage during the year 2014/15 (2007 E.C) Belg season are estimated to be about 1 782 101 and the damaged cropland area was estimated to be 151 416 hectares. For illustration purpose, the total cropland area affected by crop damage of different crop types in hectare and the various causes of crop damage are presented graphically in Figure 9.

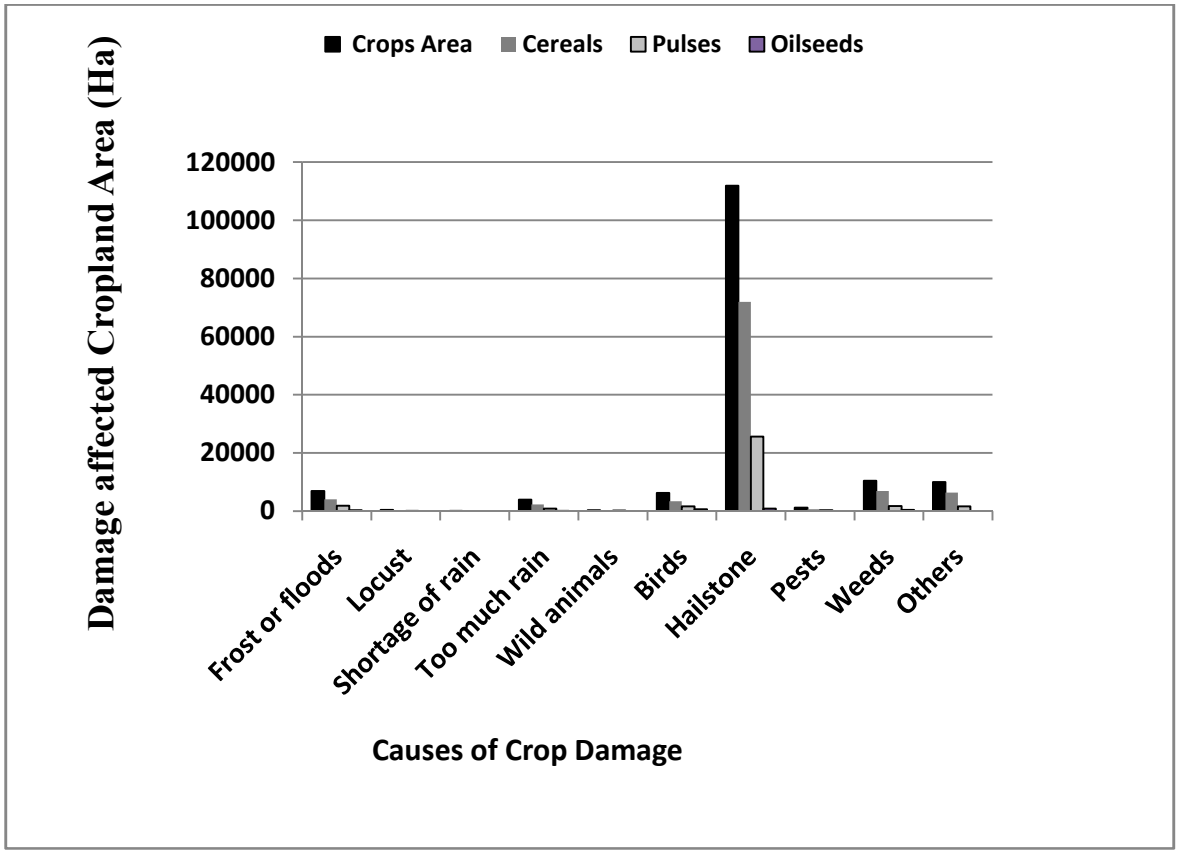

Figure 8 Damaged Cropland Area by Causes of Damage and Crop Category

As indicated in Figure 9, the highest cropland area damaged was reported for cereals which is 95 719 hectares, followed by pulses with about 34 316 hectares and oil crops with 2 444 hectares**.** With regard to the causes of crop damage, it is reported that 111 865 hectares was damaged due to hailstone. The second highest cause of crop damage is frost or floods with

estimated crop damaged area of 6 957 hectares while weeds stands third position in damaging 10 407 hectare cropland area (For further details, see Figure 9).

National and Regional Statistical Tables of Farm Management Practices

Table 10. Number of Holders, Inputs Applied Area and Quantity of Inputs used in Belg 2007 E.C (2014/15E.C)

Country Level

Crop type	*All crop land Area*	*All Fertilizer*		*Natural*		*DAP*		
	Hectare	*Hectare*	*Quintas*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**1,442,439**	**656,140**	**562,423**	**4,550,738**	**273,318**	**1,682,590**	**232,217**	**273,165**
Cereals	**883,968**	**318,390**	**206,262**	**1,991,471**	**133,921**	**651,162**	**125,711**	**123,086**
Teff	88,551	21,975	13,749	21,408	2,953	39,437	10,198	4,757
Barley	174,489	76,946	56,383	190,426	18,285	152,263	41,053	38,260
Wheat	61,924	39,073	31,109	67,948	8,568	63,153	27,245	26,993
Maize	516,145	167,699	100,499	1,738,770	95,532	435,132	43,548	50,198
Sorghum	36,918	11,034	3,689	83,000	8,301	21,195	2,339	2,069
Finger millet	315	49	*	*	*	*	*	*
Oats/ 'Aja'	5,384	1,611	819	*	*	9,628	1,324	795
Rice	*	*	*	*	*	*	*	*
Pulse	**261,305**	**105,899**	**83,248**	**1,431,512**	**50,400**	**584,125**	**43,808**	**55,952**
Horse/Faba beans	4,070	463	*	15,662	356	*	*	*
Field peas	15,209	1,648	*	16,612	1,434	*	*	*
White Haricot beans	25,801	8,411	5,494	170,638	5,988	37,378	2,101	3,585
Red Haricot beans	170,930	92,636	76,777	1,239,491	40,126	541,377	41,397	51,766
Chick peas	4,803	*	*	*	*	*	*	*
Lentiles	8,605	*	*	3,570	*	*	*	*
Vetch/Grass peas	*	*	*	*	*	*	*	*
Soya beans	*	*	*	*	*	*	*	*
Fenugreek	1,010	74	*	*	*	*	*	*
Mung bean/"Masho"	26,017	*	-	*	*	-	-	-
Gibto	*	-	-	-	-	-	-	-
Oil seeds	**28,876**	**4,412**	**1,589**	*****	**1,041**	*****	**3,216**	**762**
Nueg	*	*	-	*	*	-	-	-
Linseed	94	*	-	*	*	-	-	-
Ground nuts	*	*	*	*	*	*	*	*
Safflower	*	*	*	*	*	*	*	*
Sesame	24,668	3,505	735	2,155	*	2,658	2,926	*
Rapeseed	*	*	*	*	*	*	*	*
Vegetables.....	**41,641**	**31,822**	**46,289**	**1,816,308**	**22,455**	**116,808**	**2,626**	**10,584**
Lettuce.....	*	*	*	*	*	-	-	-
Head Cabbage....	*	*	*	33,714	*	5,482	208	*
Ethiopian Cabbage	32,131	24,474	16,110	1,736,664	20,845	106,349	2,095	8,322
Tomatoes.....	3,678	*	*	37,263	449	3,734	*	*
Green peppers...	2,066	*	*	64,163	*	5,297	*	*
Red peppers.....	422	187	*	11,128	*	*	*	*
Swiss chard.....	64	42	*	5,992	10	*	*	*
Root Crops.....	**226,649**	**195,617**	**225,035**	**1,853,125**	**65,501**	**876,726**	**56,856**	**82,780**
Beetroot.....	625	314	809	24,425	123	3,254	*	*
Carrot.....	282	250	317	*	103	*	*	*
Onion.....	21,048	17,290	45,651	118,864	2,666	21,554	*	1,791
Potatoes.....	186,595	167,174	165,210	1,428,831	55,981	820,929	52,643	75,153
Yam.....	803	632	*	48,187	435	18,827	124	*
Garlic.....	7,198	*	*	175,670	*	18,650	*	*
Taro/'Godere'...	1,779	778	832	67,473	679	3,948	*	*
Sweet potatoes..	8,319	3,803	776	131,544	3,652	8,098	87	*

Table 10. (*Cont'd*)Number of Holders, Inputs Applied Area and Quantity of Inputs used in Belg 2007 E.C (2014/15)

Country Level

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	Quintal
All	**180,195**	**23,785**	**40,441**	**1,402,284**	**126,819**	**248,817**	**9,139,275**	**1,316,532**	**864646**
Cereals	**85,143**	**13,485**	**16,929**	**247,382**	**45,274**	**66,248**	**3,865,541**	**780,610**	**701598**
Teff	8,408	2,348	*	15,715	6,476	6,550	348,051	88,350	47118
Barley	10,916	3,089	*	53,242	14,518	14,167	838,616	173,717	351858
Wheat	*	485	375	5,579	*	*	223,010	61,096	126700
Maize	61,405	7,300	9,154	177,482	21,319	41,148	2,812,460	425,471	161914
Sorghum	5,021	263	1,003	*	*	*	88,019	26,089	4772
Finger millet	-	-	-	-	-	-	4,420	307	59
Oats/ 'Aja'	-	-	-	*	*	*	43,624	5,381	9053
Rice	-	-	-	-	-	-	1,133	*	*
Pulse	**37,281**	**1,806**	**3,428**	**159,382**	**9,885**	**23,867**	**3,314,329**	**258,379**	**120313**
Horse/Faba beans	-	-	-	*	*	*	78,870	4,068	2992
Field peas	*	*	*	*	*	*	103,039	15,185	17435
White Haricot beans	*	*	*	6,057	*	*	405,715	25,674	12992
Red Haricot beans	35,682	1,609	3,237	151,105	9,504	21,774	2,671,591	168,203	65353
Chick peas	-	-	-	*	*	*	42,066	4,770	3765
Lentiles	-	-	-	-	-	-	57,330	8,605	5852
Vetch/Grass peas	-	-	-	-	-	-	*	*	*
Soya beans	-	-	-	-	-	-	*	*	*
Fenugreek	*	*	*	*	*	*	14,281	1,010	357
Mung bean/"Masho"	-	-	-	-	-	-	78,951	26,003	6996
Gibto	-	-	-	-	-	-	*	*	*
Oil seeds	*	*	*	*	*	*	**115,733**	**28,373**	**5127**
Nueg	-	-	-	-	-	-	*	*	-
Linseed	-	-	-	-	-	-	*	*	*
Ground nuts	-	-	-	-	-	-	17,849	*	*
Safflower	-	-	-	*	*	*	2,482	*	*
Sesame	*	*	*	*	*	*	57,984	24,668	4112
Rapeseed	-	-	-	*	*	*	*	*	*
Vegetables.....	**14,734**	*	*	**100,394**	*	*	**2,452,155**	**36,652**	**144**
Lettuce.....	*	*	*	-	-	-	3,194	*	-
Head Cabbage....	*	*	*	*	*	*	55,854	1,038	-
Ethiopian Cabbage	10,148	202	*	52,252	*	7,126	2,296,835	31,513	140
Tomatoes.....	*	*	*	*	*	*	70,360	1,559	*
Green peppers...	*	*	*	*	*	*	128,739	2,044	-
Red peppers.....	*	*	*	*	*	*	22,076	416	-
Swiss chard.....	-	-	-	*	*	*	10,977	*	*
Root Crops.....	**93,998**	**7,484**	**18,345**	**1,105,121**	**65,775**	**123,910**	**4,047,274**	**212,518**	*
Beetroot.....	*	*	*	3,333	*	243	42,876	506	*
Carrot.....	*	*	*	2,273	*	*	13,624	105	-
Onion.....	18,055	1,900	5,853	65,814	*	*	261,185	19,563	*
Potatoes.....	69,576	5,419	*	1,011,830	53,131	78,548	3,384,928	175,629	*
Yam.....	*	*	*	*	*	*	81,310	782	-
Garlic.....	*	*	*	*	*	*	312,506	7,154	*
Taro/'Godere'...	-	-	-	1,587	*	*	47,794	624	*
Sweet potatoes..	*	*	*	*	*	*	253,033	8,154	*

Table 10. (*Cont'd*)Number of Holders, Inputs Applied Area and Quantity of Inputs used for Belg 2007 E.C (2014/15)

Country Level

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	**522,287**	**57,056**	**18,994**	**726,666**	**145,026**	**807,875**	**148,132**	**1,676,278**	**304650**
Cereals	**276,961**	**42,417**	**14,641**	**221,453**	**94,066**	**469,378**	**95,808**	**746,792**	**171830**
Teff	*	*	*	81,426	27,645	*	*	56,163	20005
Barley	*	*	*	93,987	27,231	43,744	8,977	156,109	43932
Wheat	*	*	*	60,304	27,040	*	*	59,064	29774
Maize	269,478	41,456	13,836	38,363	7,676	367,599	74,609	521,083	74055
Sorghum	*	*	*	4,108	*	6,519	564	21,569	1671
Finger millet	-	-	-	-	-	-	-	*	*
Oats/ 'Aja'	-	-	-	15,849	3,540	*	*	14,216	2363
Rice	-	-	-	-	-	-	-	*	*
Pulse	**48,355**	**1,863**	**1,123**	**39,221**	*****	**96,052**	*****	**474,364**	**48072**
Horse/Faba beans	-	-	-	*	*	*	*	*	19
Field peas	*	*	*	*	*	*	*	8,884	*
White Haricot beans	*	*	*	1,740	*	13,146	*	52,265	3238
Red Haricot beans	45,809	1,801	1,070	15,893	1,066	47,439	1,692	384,614	31150
Chick peas	*	*	*	*	*	6,572	*	*	*
Lentiles	-	-	-	*	*	2,701	*	*	*
Vetch/Grass peas	-	-	-	*	*	*	*	*	*
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	*	*	3,263	*	*	*
Mung bean/"Masho"	-	-	-	*	447	*	*	*	*
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	**-**	**-**	**-**	*****	*****	*****	*****	**19,457**	**4640**
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	*	*	*	*	*	*
Safflower	-	-	-	-	-	-	-	*	*
Sesame	-	-	-	*	*	*	*	5,713	3097
Rapeseed	-	-	-	*	*	*	*	*	*
Vegetables.....	*****	*****	*****	*****	**3,363**	**169,503**	**8,237**	**136,026**	**5456**
Lettuce.....	*	*	-	*	*	*	*	*	*
Head Cabbage....	*	*	*	*	*	*	*	*	*
Ethiopian Cabbage	*	*	*	*	*	53,100	*	99,718	2389
Tomatoes.....	*	*	*	*	*	67,215	2,121	*	863
Green peppers...	1,404	16	-	*	*	*	*	5,728	*
Red peppers.....	*	*	-	*	*	12,623	349	*	*
Swiss chard.....	*	*	-	*	*	*	*	*	*
Root Crops.....	178,428	8,566	*	*****	**38,635**	**361,095**	**30,161**	**905,285**	**74652**
Beetroot.....	11,940	118	*	*	*	10,311	160	7,179	*
Carrot.....	*	172	*	*	*	7,963	*	*	162
Onion.....	27,475	1,480	*	40,831	*	164,035	17,797	85,666	13973
Potatoes.....	118,701	6,780	*	*	27,933	151,890	6,976	748,628	55297
Yam.....	-	-	-	-	-	-	-	*	*
Garlic.....	*	*	-	*	*	62,419	*	*	*
Taro/'Godere'...	*	*	*	*	*	-	-	5,709	103
Sweet potatoes..	-	-	-	-	-	26,119	988	*	186

Table 10.1: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Tigray Region

	All crop	*All Fertilizer*		*Natural*		*DAP*		
Crop type	*land Area*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**5,941**	**2,091**	**3,294**	**-**	**-**	*	*	*
Cereals	**5,492**	**1,756**	**2,546**	**-**	**-**	*	*	*
Teff	*	*	*	-	-	*	*	*
Barley	*	*	*	-	-	*	*	*
Wheat	*	*	*	-	-	-	-	-
Maize	*	*	*	-	-	*	*	*
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	*	*	*	-	-	*	*	*
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	*	*	*	-	-	*	*	*
White Haricot beans	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	*	*	*	-	-	*	*	*
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	*	*	*	-	-	*	*	*
Mung bean/"Masho"	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oil seeds	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables.....	*	*	*	-	-	*	*	*
Lettuce.....	-	-	-	-	-	-	-	-
Head Cabbage....	*	*	*	-	-	*	*	*
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes.....	-	-	-	-	-	-	-	-
Green peppers...	-	-	-	-	-	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-
Swiss chard.....	*	*	*	-	-	-	-	-
Root Crops.....	**332**	*	*	-	-	*	*	*
Beetroot.....	-	-	-	-	-	-	-	-
Carrot.....	*	*	*	-	-	*	*	*
Onion.....	*	*	*	-	-	-	-	-
Potatoes.....	*	*	*	-	-	*	*	*
Yam.....	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-

Table 10.1:(*Cont'd*) Number of Holders,Inputs Applied Area and Quantity of Inputs used

Tigray Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	Hectare	Quintal
All	*	*	*	*	*	*	**36,571**	**5,340**	**4268**
Cereals	*	*	*	*	*	*	**32,999**	**4,895**	**4143**
Teff	-	-	-	*	*	*	*	*	*
Barley	-	-	-	*	*	*	*	*	*
Wheat	*	*	*	-	-	-	*	*	*
Maize	*	*	*	*	*	*	*	*	*
Sorghum	-	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	*	*	*
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	*	*	*
White Haricot beans	-	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	*	*	*
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	*	*	*
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	-	-	-	*	*	*	*	*	-
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	*	*	*	*	*	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	-	-	-	-	-	-	-	-	-
Green peppers...	-	-	-	-	-	-	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	*	*	*	-	-	-
Root Crops.....	-	-	-	*	*	*	**4,248**	**331**	*
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	-	-	-	*	*	*	*	*	-
Potatoes.....	-	-	-	-	-	-	*	*	*
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-	-

Table 10.1:(*Cont'd*) Number of Holders,Inputs Applied Area and Quantity of Inputs used

Tigray Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	*	*	*	-	-	**21,891**	**1,896**	**19,304**	*
Cereals	*	*	*	-	-	**19,044**	**1,560**	**17,709**	*
Teff	-	-	-	-	-	*	*	*	*
Barley	-	-	-	-	-	*	*	*	*
Wheat	*	*	*	-	-	-	-	*	*
Maize	*	*	*	-	-	*	*	*	*
Sorghum	-	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	*	*	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	*	*	-	-
White Haricot beans	-	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	*	*	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	*	*	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	-	-	-	-	-	*	*	*	*
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	*	*	*	*
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	-	-	-	-	-	-	-	-	-
Green peppers...	-	-	-	-	-	-	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	*	*	*	*
Root Crops.....	*	*	-	-	-	*	*	*	*
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	*	*	-	-	-	*	*	-	-
Onion.....	-	-	-	-	-	*	*	*	*
Potatoes.....	-	-	-	-	-	*	*	-	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-	-

Table 10.2: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Afar Region

	All crop	*All Fertilizer*		*Natural*		*DAP*		
Crop type	*land Area*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**25,547**	*	-	*	*	-	-	-
Cereals	**25,314**	*	-	*	*	-	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	*	-	-	-	-	-	-	-
Maize	25,250	*	-	*	*	-	-	-
Sorghum	*	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	*	*	-	*	*	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
White Haricot beans	*	*	-	*	*	-	-	-
Red Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oil seeds	*	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	*	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables.....	**134**	-	-	-	-	-	-	-
Lettuce.....	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes.....	*	-	-	-	-	-	-	-
Green peppers...	*	-	-	-	-	-	-	-
Red peppers.....	*	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-
Root Crops.....	*	-	-	-	-	-	-	-
Beetroot.....	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-
Onion.....	*	-	-	-	-	-	-	-
Potatoes.....	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-

Table 10.2 ***(Cont'd)*** **Number of Holders,Inputs Applied Area and Quantity of Inputs used**

Afar Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	Hectare	Quintal
All	**-**	**-**	**-**	**-**	**-**	**-**	**20,028**	**18,464**	**7894**
Cereals	**-**	**-**	**-**	**-**	**-**	**-**	**19,056**	**18,243**	**7890**
Teff	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	18,930	18,180	7861
Sorghum	-	-	-	-	-	-	*	*	*
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	**-**	**-**	**-**	**-**	**-**	**-**	*	*	*
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	*	*	*
Red Haricot beans	-	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	**-**	**-**	**-**	**-**	**-**	**-**	*	*	*
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	*	*	*
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	**-**	**-**	**-**	**-**	**-**	**-**	**2,195**	**127**	**-**
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	-	-	-	-	-	-	1,440	*	-
Green peppers...	-	-	-	-	-	-	794	*	-
Red peppers.....	-	-	-	-	-	-	926	*	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	**-**	**-**	**-**	**-**	**-**	**-**	*	*	**-**
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	-	-	-	-	-	-	*	*	-
Potatoes.....	-	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-	-

Table 10.2 ***(Cont'd)*** **Number of Holders,Inputs Applied Area and Quantity of Inputs used**

Afar Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	**9,184**	**7,083**	**2,281**	**-**	**-**	**26,365**	**25,530**	*	*
Cereals	**8,930**	**7,071**	**2,281**	**-**	**-**	**26,069**	**25,297**	*	*
Teff	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-
Wheat	*	*	*	-	-	*	*	-	-
Maize	8,890	7,071	2,280	-	-	25,943	25,233	*	*
Sorghum	-	-	-	-	-	*	*	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	**-**	**-**	**-**	**-**	**-**	*	*	**-**	**-**
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	*	*	-	-
Red Haricot beans	-	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	**-**	**-**	**-**	**-**	**-**	*	*	**-**	**-**
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	*	*	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	**432**	**8**	**-**	**-**	**-**	**2,627**	**134**	**-**	**-**
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	254	*	-	-	-	1,694	*	-	-
Green peppers...	*	*	-	-	-	1,103	*	-	-
Red peppers.....	*	*	-	-	-	966	*	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	*	*	**-**	**-**	**-**	*	*	*	*
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	*	*	-	-	-	*	*	*	*
Potatoes.....	-	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-	-

Table 10.3: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Amhara Region

	All crop	*All Fertilizer*		*Natural*		*DAP*		
Crop type	*land Area*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**220,889**	**83,103**	**75,694**	**315,078**	**37,646**	**106,705**	**20,701**	**24,339**
Cereals	**133,120**	**46,557**	**32,458**	**148,781**	**17,796**	**60,070**	**12,055**	**12,460**
Teff	25,998	3,317	*	10,817	1,574	*	*	*
Barley	84,630	30,605	24,726	55,719	7,204	33,451	8,853	9,039
Wheat	10,733	*	*	*	*	*	*	*
Maize	11,139	5,987	4,829	50,535	2,986	19,884	*	*
Sorghum	*	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/ 'Aja'	462	*	*	*	*	*	*	*
Rice	-	-	-	-	-	-	-	-
Pulse	**47,547**	*****	*****	**14,487**	*****	*****	*****	*****
Horse/Faba beans	*	*	-	*	*	-	-	-
Field peas	*	*	-	*	*	-	-	-
White Haricot beans	*	*	-	*	*	-	-	-
Red Haricot beans	582	*	-	*	*	-	-	-
Chick peas	4,317	*	*	*	*	-	-	-
Lentiles	4,010	172	*	1,792	*	*	*	*
Vetch/Grass peas	*	*	*	*	*	*	*	*
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	330	*	*	*	*	-	-	-
Mung bean/"Masho"	25,962	*	-	*	*	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oil seeds	*****	*****	**-**	*****	*****	**-**	**-**	**-**
Nueg	-	-	-	-	-	-	-	-
Linseed	*	-	-	-	-	-	-	-
Ground nuts	*	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	*	*	-	*	*	-	-	-
Vegetables.....	**1,281**	**568**	**1,534**	**9,944**	**119**	*****	*****	*****
Lettuce.....	*	*	*	*	*	-	-	-
Head Cabbage....	179	*	*	*	*	*	*	*
Ethiopian Cabbage	*	*	*	4,378	*	*	*	*
Tomatoes.....	551	*	*	*	*	-	-	-
Green peppers...	*	*	*	*	*	-	-	-
Red peppers.....	315	159	*	*	*	*	*	*
Swiss chard.....	*	*	-	*	*	-	-	-
Root Crops.....	**38,868**	**31,602**	**41,516**	**204,593**	**15,417**	**72,060**	**8,524**	**11,608**
Beetroot.....	*	*	*	*	*	*	*	*
Carrot.....	*	*	*	*	*	-	-	-
Onion.....	6,675	5,337	13,118	19,590	*	*	*	*
Potatoes.....	28,507	22,778	20,331	189,957	14,762	57,698	5,049	7,907
Yam.....	-	-	-	-	-	-	-	-
Garlic.....	*	*	*	5,341	*	*	*	*
Taro/'Godere'...	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-

Table 10.3 (Cont'd) **Number of Holders,Inputs Applied Area and Quantity of Inputs used**

Amhara Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	Hectare	Quintal
All	**47,342**	**6,372**	**18,429**	**101,980**	**18,383**	**32,926**	**932,368**	**216,568**	**239705**
Cereals	**17,682**	**3,604**	*	**49,249**	**13,102**	**14,615**	**589,410**	**130,614**	**213466**
Teff	*	*	*	*	*	*	144,493	25,974	*
Barley	7,462	2,368	*	41,982	12,181	12,245	315,873	84,403	174734
Wheat	*	*	*	*	*	*	85,140	10,579	13306
Maize	4,643	465	*	5,647	569	*	94,796	9,038	7026
Sorghum	-	-	-	-	-	-	*	*	*
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	13,397	462	979
Rice	-	-	-	-	-	-	-	-	-
Pulse	**-**	**-**	**-**	*	*	*	**193,994**	**47,501**	**25578**
Horse/Faba beans	-	-	-	-	-	-	*	*	*
Field peas	-	-	-	-	-	-	21,551	*	*
White Haricot beans	-	-	-	-	-	-	*	*	*
Red Haricot beans	-	-	-	-	-	-	7,954	582	*
Chick peas	-	-	-	*	*	*	38,516	4,284	*
Lentiles	-	-	-	-	-	-	32,619	4,010	3310
Vetch/Grass peas	-	-	-	-	-	-	*	*	*
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	*	*	*	8,164	330	189
Mung bean/"Masho"	-	-	-	-	-	-	78,195	25,950	6986
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	**-**	**-**	**-**	**-**	**-**	**-**	*	*	*
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	*	*	*
Ground nuts	-	-	-	-	-	-	*	*	*
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	*	*	*
Vegetables.....	*	*	*	**3,586**	*	**1,311**	**29,068**	**935**	*
Lettuce.....	*	*	*	-	-	-	*	*	-
Head Cabbage....	*	*	*	*	*	*	2,794	*	-
Ethiopian Cabbage	-	-	-	*	*	*	8,975	*	*
Tomatoes.....	*	*	*	-	-	-	*	*	-
Green peppers...	*	*	*	*	*	*	2,808	*	-
Red peppers.....	*	*	*	*	*	*	10,730	312	-
Swiss chard.....	-	-	-	-	-	-	*	*	-
Root Crops.....	**31,275**	**2,595**	*	**60,679**	**5,067**	**16,984**	**421,063**	**37,447**	*
Beetroot.....	*	*	*	*	*	*	*	*	-
Carrot.....	-	-	-	*	*	*	*	*	-
Onion.....	13,703	1,518	5,479	*	*	*	65,953	5,662	*
Potatoes.....	16,167	*	*	29,889	1,989	5,458	350,158	28,156	*
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	*	*	*	*	*	*	*	*	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-	-

Table 10.3 ***(Cont'd)*** **Number of Holders,Inputs Applied Area and Quantity of Inputs used**

Amhara Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	Hectare
All	**30,131**	**3,171**	*	**30,735**	*	**273,648**	**48,559**	**312,883**	**71166**
Cereals	*	*	*	**4,202**	*	**141,030**	**21,916**	**147,361**	**33456**
Teff	*	*	*	*	*	*	*	*	*
Barley	*	*	*	*	*	16,384	2,996	92,004	25523
Wheat	*	*	*	*	*	*	*	*	*
Maize	*	*	*	*	*	69,754	7,897	37,270	3420
Sorghum	-	-	-	-	-	*	*	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	*	*	*	*
Rice	-	-	-	-	-	-	-	-	-
Pulse	*	*	*	*	*	*	*	*	*
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	*	*	-	-	*	*
White Haricot beans	-	-	-	-	-	*	*	-	-
Red Haricot beans	-	-	-	-	-	-	-	-	-
Chick peas	*	*	*	-	-	*	*	*	*
Lentiles	-	-	-	*	*	*	*	*	*
Vetch/Grass peas	-	-	-	*	*	*	*	*	*
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	2,636	*	*	*
Mung bean/"Masho"	-	-	-	*	447	*	*	*	*
Gibto	-	-	-	-	-	-	-	-	-
Oile seeds	-	-	-	-	-	*	*	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	*	*	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	*	*	-	-
Vegetables.....	*	*	-	**2,463**	**232**	**28,923**	**1,221**	**10,472**	**525**
Lettuce.....	-	-	-	*	*	*	*	*	*
Head Cabbage....	*	*	-	*	*	3,535	173	*	*
Ethiopian Cabbage	-	-	-	*	*	5,514	*	*	*
Tomatoes.....	*	*	-	*	*	10,547	515	*	*
Green peppers...	-	-	-	*	*	2,542	*	*	*
Red peppers.....	-	-	-	*	*	11,287	315	*	*
Swiss chard.....	-	-	-	-	-	*	*	-	-
Root Crops.....	**18,208**	**1,271**	-	*	*	**154,843**	**14,187**	**226,819**	**24983**
Beetroot.....	*	*	-	-	-	*	*	*	*
Carrot.....	*	*	-	-	-	*	*	*	*
Onion.....	10,340	*	-	*	*	66,892	6,570	41,847	4938
Potatoes.....	5,270	201	-	*	*	83,021	3,952	175,795	16676
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	*	*	*	*	*	*
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-	-

Table 10.4: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Oromia Region

	All crop	*All Fertilizer*		*Natural*		*DAP*		
Crop type	*land Area*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**617,237**	**279,875**	**212,735**	**1,196,477**	**110,839**	**494,075**	**128,404**	**135,072**
Cereals	**431,274**	**184,064**	**106,305**	**780,367**	**71,946**	**337,762**	**91,310**	**82,148**
Teff	40,829	10,265	3,851	7,935	1,299	29,891	6,325	2,355
Barley	75,081	41,643	30,322	83,647	7,902	106,420	31,138	28,398
Wheat	49,662	31,900	29,684	21,442	2,570	58,731	26,657	26,353
Maize	239,439	89,796	39,552	673,932	53,217	180,149	23,823	22,549
Sorghum	21,294	9,034	2,138	63,134	6,824	17,429	2,128	*
Finger millet	*	*	*	*	*	*	*	*
Oats/ 'Aja'	4,890	1,402	744	3,779	113	5,875	1,236	720
Rice	*	*	*	*	*	*	*	*
Pulse	**92,358**	**31,729**	**21,504**	**558,901**	**20,485**	**114,481**	**8,787**	**16,469**
Horse/Faba beans	2,498	236	-	8,526	236	-	-	-
Field peas	12,323	1,312	*	9,346	*	*	*	*
White Haricot beans	18,971	5,481	4,390	153,822	3,857	21,457	1,403	2,849
Red Haricot beans	52,924	24,349	16,779	395,048	14,914	89,195	7,309	13,360
Chick peas	*	*	-	*	*	-	-	-
Lentiles	*	*	*	*	*	*	*	*
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	*	*	-	*	*	-	-	-
Fenugreek	*	*	-	*	*	-	-	-
Mung bean/"Masho"	*	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	**13,805**	**3,639**	*	*	*	*	**3,045**	*
Nueg	-	-	-	-	-	-	-	-
Linseed	*	*	-	*	*	-	-	-
Ground nuts	*	*	*	*	*	*	*	*
Safflower	-	-	-	-	-	-	-	-
Sesame	13,008	3,035	*	*	*	2,121	2,784	*
Rapeseed	*	*	*	*	*	*	*	*
Vegetables.....	**12,481**	**8,000**	**13,327**	**382,021**	**5,749**	**17,066**	**732**	**2,471**
Lettuce.....	*	*	-	*	*	-	-	-
Head Cabbage....	502	*	*	19,858	*	1,780	*	*
Ethiopian Cabbage	9,534	5,880	7,025	328,235	4,640	11,866	352	1,589
Tomatoes.....	1,028	767	1,063	*	*	3,627	*	*
Green peppers...	*	*	*	*	*	2,014	*	*
Red peppers.....	*	*	-	*	*	-	-	-
Swiss chard.....	*	*	*	*	*	*	*	*
Root Crops.....	**67,318**	**52,443**	**70,324**	**371,926**	**12,093**	**167,067**	**24,530**	**33,332**
Beetroot.....	406	203	*	13,159	77	1,770	*	*
Carrot.....	*	*	*	*	*	*	*	*
Onion.....	13,163	*	*	58,190	1,913	*	*	*
Potatoes.....	49,374	39,356	43,624	217,005	8,565	160,363	24,259	32,784
Yam.....	*	*	-	*	*	-	-	-
Garlic.....	1,877	446	*	59,099	283	1,403	*	*
Taro/'Godere'...	367	280	-	24,513	280	-	-	-
Sweet potatoes..	2,089	1,001	*	34,384	952	*	*	*

Table 10.4(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Oromia Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	Hectare	Quintal
All	**41,129**	**7,133**	**8,159**	**158,208**	**33,500**	**69,504**	**2,807,399**	**556,569**	**423240**
Cereals	**25,894**	**4,503**	**5,451**	**82,537**	**16,306**	**18,706**	**1,535,955**	**375,435**	**374296**
Teff	*	*	*	*	*	1,406	128,751	40,668	20966
Barley	2,813	*	*	*	*	*	376,144	74,831	163844
Wheat	*	*	*	*	*	*	130,881	49,450	112036
Maize	22,031	3,386	4,299	68,074	9,371	12,704	1,098,485	193,186	67504
Sorghum	*	*	*	-	-	-	30,306	12,339	1852
Finger millet	-	-	-	-	-	-	*	*	*
Oats/ 'Aja'	-	-	-	*	*	*	30,109	4,890	8070
Rice	-	-	-	-	-	-	*	*	*
Pulse	**9,899**	**682**	**833**	*****	**1,775**	**4,201**	**1,218,046**	**91,664**	**44767**
Horse/Faba beans	-	-	-	-	-	-	32,725	2,496	1829
Field peas	*	*	*	-	-	-	61,038	12,299	14289
White Haricot beans	*	*	*	*	*	*	328,427	18,855	8585
Red Haricot beans	9,082	*	698	*	1,609	2,721	820,945	52,371	16506
Chick peas	-	-	-	-	-	-	*	*	*
Lentiles	-	-	-	-	-	-	*	*	*
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	*	*	*
Fenugreek	-	-	-	-	-	-	3,247	*	*
Mung bean/"Masho"	-	-	-	-	-	-	*	*	*
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	**-**	**-**	**-**	*****	*****	*****	*****	**13,350**	**2691**
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	*	*	*
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	21,758	13,008	2653
Rapeseed	-	-	-	*	*	*	*	*	*
Vegetables.....	*****	*****	*****	*****	**1,471**	*****	**654,990**	**12,348**	*****
Lettuce.....	-	-	-	-	-	-	*	*	-
Head Cabbage....	-	-	-	*	*	*	32,304	476	-
Ethiopian Cabbage	*	*	*	*	*	*	561,442	9,460	*
Tomatoes.....	-	-	-	*	*	*	49,904	999	-
Green peppers...	-	-	-	*	*	*	96,468	*	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	*	*	*	*	*	-
Root Crops.....	**14,562**	*****	*****	**71,661**	**13,921**	*****	**807,262**	**63,772**	*****
Beetroot.....	-	-	-	*	*	*	28,932	370	*
Carrot.....	-	-	-	*	*	*	4,164	*	-
Onion.....	*	*	*	*	*	*	124,623	13,123	*
Potatoes.....	*	*	*	29,736	4,782	9,395	564,499	46,333	*
Yam.....	-	-	-	-	-	-	*	*	-
Garlic.....	-	-	-	*	*	*	119,807	1,851	*
Taro/'Godere'...	-	-	-	-	-	-	*	*	-
Sweet potatoes..	-	-	-	*	*	*	58,795	2,072	*

Table 10.4(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Oromia Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	**108,480**	**12,723**	**2,459**	**255,885**	**107,003**	**359,896**	**50,737**	**493,586**	**144885**
Cereals	**88,963**	**11,365**	**2,368**	**183,812**	**85,155**	**223,299**	**31,511**	**335,015**	**98898**
Teff	-	-	-	68,830	23,504	*	*	30,233	10273
Barley	*	*	*	83,606	25,521	23,229	*	56,287	17519
Wheat	-	-	-	59,395	26,915	*	*	47,202	28084
Maize	85,031	11,186	2,337	23,319	5,107	199,752	25,520	241,033	39568
Sorghum	-	-	-	*	*	*	*	12,387	1164
Finger millet	-	-	-	-	-	-	-	*	*
Oats/ 'Aja'	-	-	-	15,849	3,540	-	-	10,463	2275
Rice	-	-	-	-	-	-	-	*	*
Pulse	**8,446**	**221**	**82**	**10,575**	**1,251**	**31,945**	**909**	**165,331**	**14980**
Horse/Faba beans	-	-	-	*	*	*	-	*	*
Field peas	*	*	*	*	*	-	-	*	*
White Haricot beans	*	*	*	1,724	*	4,670	71	36,448	2532
Red Haricot beans	*	*	63	4,813	*	*	*	122,718	11012
Chick peas	*	-	-	*	*	*	*	*	*
Lentiles	-	-	-	*	*	-	-	*	*
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	**-**	**-**	**-**	*****	*****	*****	*****	*****	**3021**
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	*	*
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	*	*	-	-	*	*
Rapeseed	-	-	-	*	*	*	*	*	*
Vegetables.....	3,645	43	*	*****	*****	**94,016**	**3,420**	**42,399**	**1967**
Lettuce.....	-	-	-	-	-	*	*	-	-
Head Cabbage....	*	*	*	-	-	*	*	1,584	*
Ethiopian Cabbage	*	*	-	*	*	*	*	38,107	*
Tomatoes.....	*	*	*	2,125	*	*	613	3,906	*
Green peppers...	-	-	-	-	-	*	*	*	*
Red peppers.....	-	-	-	-	-	*	*	*	*
Swiss chard.....	-	-	-	*	*	*	*	*	*
Root Crops.....	9,045	*	*	**66,773**	**17,532**	**150,344**	**14,597**	**148,399**	**26019**
Beetroot.....	1,722	*	*	-	-	*	93	*	*
Carrot.....	*	*	*	-	-	*	*	*	*
Onion.....	*	*	-	*	*	77,882	*	*	*
Potatoes.....	5,047	*	-	44,968	9,315	41,798	2,669	116,026	*
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	*	*	-	*	*	22,048	600	*	*
Taro/'Godere'...	-	-	-	-	-	-	-	*	*
Sweet potatoes..	-	-	-	-	-	*	*	*	*

Table 10.5: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Somale Region

	All crop	*All Fertilizer*		*Natural*		*DAP*		
Crop type	*land Area*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**6,097**	*	*	**2,757**	**231**	-	-	-
Cereals	**5,159**	*	*	*	*	-	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	5,108	*	*	*	*	-	-	-
Sorghum	*	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	*	*	-	*	*	-	-	-
Horse/Faba beans	*	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
White Haricot beans	*	-	-	-	-	-	-	-
Red Haricot beans	*	*	-	*	*	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables.....	**67**	**36**	*	**1,004**	**33**	-	-	-
Lettuce.....	-	-	-	-	-	-	-	-
Head Cabbage....	*	*	-	*	*	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes.....	54	32	*	962	28	-	-	-
Green peppers...	12	4	-	625	4	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-
Root Crops.....	*	*	*	**625**	**22**	-	-	-
Beetroot.....	-	-	-	-	-	-	-	-
Carrot.....	*	*	-	*	*	-	-	-
Onion.....	*	*	*	*	*	-	-	-
Potatoes.....	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-
Garlic.....	*	*	-	*	*	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-
Sweet potatoes..	*	*	-	*	*	-	-	-

Table 10.5(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Somale Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	Hectare	Quintal
All	*	*	*	*	*	*	**19,327**	**5,250**	**1445**
Cereals	*	*	*	*	*	*	**18,638**	**4,616**	**1153**
Teff	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-
Maize	*	*	*	*	*	*	18,042	4,565	1119
Sorghum	-	-	-	-	-	-	*	*	*
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	**6,254**	*	*
Horse/Faba beans	-	-	-	-	-	-	*	*	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	*	*	*
Red Haricot beans	-	-	-	-	-	-	5,539	*	*
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	*	*	*	-	-	-	*	*	-
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	*	*	*	-	-	-	*	*	-
Green peppers...	-	-	-	-	-	-	*	*	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	*	*	*	-	-	-	*	*	-
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	*	*	*	-	-	-	-	-	-
Potatoes.....	-	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	*	*	-

Table10.5(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Somale Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	*	*	*	*	*	**9,174**	**2,232**	*	*
Cereals	*	*	*	*	*	*	**1,921**	*	*
Teff	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-
Maize	*	*	*	*	*	*	1,869	*	*
Sorghum	-	-	-	-	-	*	*	*	*
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	**1,419**	**62**	-	*	**22**	**1,461**	**67**	*	*
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	*	*	-	-	-	*	*	*	*
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	1,376	51	-	*	21	1,419	54	*	*
Green peppers...	*	*	-	*	*	1,082	12	*	*
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	*	*	-	*	*	*	*	*	*
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	*	*	-	-	-	*	*	*	*
Onion.....	*	*	-	*	*	*	*	*	*
Potatoes.....	-	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	*	*	-	-	-	*	*	*	*
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	*	*	-	-

Table 10.6: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Benshangul-Gumuz Region

	All crop	*All Fertilizer*		*Natural*		*DAP*		
Crop type	*land Area*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**3,238**	**818**	*	**11,600**	**750**	*	*	*
Cereals	**1,716**	**431**	*	**8,398**	**422**	*	*	*
Teff	-	-	-	-	-	-	-	-
Barley	*	*	-	*	*	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	1,648	398	*	8,354	390	*	*	*
Sorghum	*	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	**1,267**	**272**	*	**7,886**	**242**	*	*	*
Horse/Faba beans	*	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
White Haricot beans	30	*	-	*	*	-	-	-
Red Haricot beans	1,212	261	*	7,536	231	*	*	*
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung bean/"Masho"	*	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oil seeds	*	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	*	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables.....	**120**	**46**	*	**3,684**	**41**	*	*	*
Lettuce.....	-	-	-	-	-	-	-	-
Head Cabbage....	*	*	-	*	*	-	-	-
Ethiopian Cabbage	87	21	-	2,534	21	-	-	-
Tomatoes.....	21	*	*	1,155	*	*	*	*
Green peppers...	9	7	*	802	*	*	*	*
Red peppers.....	*	*	-	*	*	-	-	-
Swiss chard.....	*	*	-	*	*	-	-	-
Root Crops.....	**134**	**70**	*	**3,618**	**45**	*	*	*
Beetroot.....	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-
Onion.....	11	*	*	*	*	*	*	*
Potatoes.....	113	54	*	2,368	32	*	*	*
Yam.....	-	-	-	-	-	-	-	-
Garlic.....	8	7	*	972	6	*	*	*
Taro/'Godere'...	-	-	-	-	-	-	-	-
Sweet potatoes..	2	*	*	*	*	*	*	*

Table 10.6(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Benshangul-Gumuz Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	Hectare	Quintal
All	*	*	*	*	*	*	**29,898**	**1,914**	**669**
Cereals	-	-	-	-	-	-	**8,007**	**443**	**106**
Teff	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	*	*	*
Wheat	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	7,403	400	82
Sorghum	-	-	-	-	-	-	*	*	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	**22,881**	**1,244**	**375**
Horse/Faba beans	-	-	-	-	-	-	*	*	*
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	1,271	30	9
Red Haricot beans	-	-	-	-	-	-	22,052	1,190	351
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	*	*	*
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	*	*	*
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	*	*	*
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	-	-	-	*	*	*	**9,462**	**110**	**1**
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	*	*	-
Ethiopian Cabbage	-	-	-	-	-	-	7,927	86	*
Tomatoes.....	-	-	-	*	*	*	1,539	*	*
Green peppers...	-	-	-	-	-	-	1,092	9	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	*	*	-
Root Crops.....	*	*	*	-	-	-	**6,848**	**115**	*
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	*	*	*	-	-	-	*	*	*
Potatoes.....	-	-	-	-	-	-	5,728	102	*
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	1,372	8	*
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	216	1	-

Table 10.6(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Benshangul-Gumuz Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	**715**	**30**	*	*	*	**7,532**	**463**	**1,699**	**110**
Cereals	*	*	*	-	-	**5,126**	*	*	*
Teff	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-
Maize	*	*	*	-	-	5,126	*	*	*
Sorghum	-	-	-		-	*	*	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	**3,586**	*	*	*
Horse/Faba beans	-	-	-	-	-	*	*	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	*	*	*	*
Red Haricot beans	-	-	-	-	-	*	*	*	*
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	*	*	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	*	*	*	*	*	**4,665**	**63**	*	*
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	*	*	-	-	-	*	*	*	*
Ethiopian Cabbage	-	-	-	-	-	3,154	32	*	*
Tomatoes.....	*	*	*	*	*	1,948	21	*	*
Green peppers...	-	-	-	-	-	950	8	*	*
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	*	*	*	*
Root Crops.....	*	*	*	-	-	**1,827**	**31**	**1,255**	**27**
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	*	*	*	-	-	*	11	*	*
Potatoes.....	*	*	-	-	-	*	*	*	*
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	*	*	*	*
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	*	*	-	-

Table 10.7: Number of Holders,Inputs Applied Area and Quantity of Inputs used

(S.N.N.P.R) Region

Crop type	*All crop land Area*	*All Fertilizer*		*Natural*		*DAP*		
		Hectare	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**552,277**	**287,490**	**267,881**	**3,012,797**	**122,977**	**1,070,403**	**82,078**	**112,848**
Cereals	**272,505**	**84,091**	**64,005**	**1,043,961**	**43,097**	**244,880**	**21,630**	**28,000**
Teff	18,689	8,198	7,577	*	*	5,883	2,857	2,028
Barley	13,950	4,263	1,042	50,624	3,143	9,260	751	603
Wheat	860	591	393	*	*	1,896	377	289
Maize	223,489	69,259	54,073	997,756	38,373	230,876	17,448	24,821
Sorghum	15,058	1,752	919	17,726	1,386	*	*	*
Finger millet	247	*	-	*	*	-	-	-
Oats/ 'Aja'	*	-	-	-	-	-	-	-
Rice	*	*	*	-	-	*	*	*
Pulse	**119,086**	**69,186**	**61,327**	**845,946**	**25,184**	**465,189**	**34,783**	**39,142**
Horse/Faba beans	1,257	*	*	5,848	70	*	*	*
Field peas	491	118	*	4,145	100	*	*	*
White Haricot beans	1,569	*	*	10,059	147	*	*	*
Red Haricot beans	115,572	67,874	59,839	833,610	24,862	450,310	34,027	38,307
Chick peas	*	*	*	-	-	*	*	*
Lentiles	*	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	*	*	*	*	*	*	*	*
Fenugreek	*	*	*	*	*	-	-	-
Mung bean/"Masho"	*	-	-	-	-	-	-	-
Gibto	*	-	-	-	-	-	-	-
Oil seeds	**14,240**	**758**	**314**	*****	**460**	*****	*****	*****
Nueg	*	*	-	*	*	-	-	-
Linseed	*	*	-	*	*	-	-	-
Ground nuts	*	*	*	*	*	*	*	*
Safflower	*	*	*	*	*	*	*	*
Sesame	10,913	470	*	1,406	*	*	*	*
Rapeseed	*	*	-	*	*	-	-	-
Vegetables.....	**27,338**	**23,013**	*****	**1,416,232**	**16,391**	**97,507**	**1,804**	**7,955**
Lettuce.....	*	*	-	*	*	-	-	-
Head Cabbage....	*	*	*	12,466	*	*	*	*
Ethiopian Cabbage	22,336	18,435	8,872	1,401,054	16,147	93,620	1,716	6,687
Tomatoes.....	*	*	*	3,215	*	*	*	*
Green peppers...	*	*	*	9,959	44	*	*	*
Red peppers.....	*	27	-	6,483	27	-	-	-
Swiss chard.....	*	*	*	*	*	*	*	*
Root Crops.....	**119,109**	**110,442**	**110,974**	**1,269,099**	**37,845**	**635,489**	**23,691**	**37,640**
Beetroot.....	144	46	*	10,599	41	*	*	*
Carrot.....	181	169	*	*	*	*	*	*
Onion.....	760	425	*	38,951	163	3,453	*	*
Potatoes.....	107,874	104,376	100,241	1,017,439	32,568	600,897	23,228	34,374
Yam.....	798	628	*	47,041	431	18,827	124	*
Garlic.....	*	*	*	110,216	*	8,549	45	*
Taro/'Godere'...	1,410	498	832	42,960	399	3,948	*	*
Sweet potatoes..	6,182	2,759	234	96,652	2,690	4,893	63	*

Table 10.7(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

(S.N.N.P.R) Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	Hectare	Quintal
All	**82,024**	**8,950**	**12,422**	**1,123,138**	**73,485**	**142,610**	**5,224,553**	**501,760**	**183935**
Cereals	**35,464**	**4,636**	**5,484**	**100,632**	**14,728**	**30,521**	**1,612,107**	**237,450**	**97354**
Teff	*	*	*	7,660	3,763	4,663	62,593	18,674	7308
Barley	*	*	*	4,511	276	372	140,587	13,773	11771
Wheat	*	*	*	*	*	*	5,538	853	778
Maize	30,961	2,952	*	91,582	10,486	25,077	1,511,468	190,259	74537
Sorghum	*	*	*	*	*	*	55,729	13,478	2808
Finger millet	-	-	-	-	-	-	3,945	247	*
Oats/ 'Aja'	-	-	-	-	-	-	*	*	*
Rice	-	-	-	-	-	-	*	*	*
Pulse	**27,382**	**1,123**	**2,595**	**128,820**	**8,096**	**19,590**	**1,862,888**	**116,923**	**49182**
Horse/Faba beans	-	-	-	*	*	*	40,402	1,257	602
Field peas	*	*	*	*	*	*	19,823	491	219
White Haricot beans	*	*	*	1,738	89	*	44,193	1,559	565
Red Haricot beans	26,601	1,092	2,539	125,122	7,892	18,993	1,808,764	113,419	47762
Chick peas	-	-	-	-	-	-	*	*	*
Lentiles	-	-	-	-	-	-	*	*	*
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	*	*	*
Fenugreek	*	*	*	*	*	*	*	*	*
Mung bean/"Masho"	-	-	-	-	-	-	*	*	*
Gibto	-	-	-	-	-	-	*	*	*
Oil seeds	*****	*****	*****	*****	*****	*****	**62,187**	**14,193**	**2343**
Nueg	-	-	-	-	-	-	*	*	-
Linseed	-	-	-	-	-	-	*	*	*
Ground nuts	-	-	-	-	-	-	17,720	*	*
Safflower	-	-	-	*	*	*	2,482	*	*
Sesame	*	*	*	*	*	*	34,798	10,913	1374
Rapeseed	-	-	-	-	-	-	*	*	-
Vegetables.....	**11,516**	*****	*****	*****	*****	*****	**1,749,450**	**22,963**	**74**
Lettuce.....	-	-	-	-	-	-	*	*	-
Head Cabbage....	-	-	-	*	*	*	18,941	*	-
Ethiopian Cabbage	9,015	*	345	*	*	1,840	1,717,349	21,793	71
Tomatoes.....	*	*	*	*	*	*	7,001	*	-
Green peppers...	*	*	*	-	-	-	24,780	*	-
Red peppers.....	-	-	-	-	-	-	10,421	*	-
Swiss chard.....	-	-	-	-	-	-	*	*	*
Root Crops.....	**42,404**	**2,410**	**3,045**	**967,621**	**46,496**	**70,289**	**2,796,781**	**110,231**	*****
Beetroot.....	-	-	-	*	*	*	11,957	73	*
Carrot.....	*	*	*	*	*	*	8,052	70	-
Onion.....	*	*	*	*	*	*	66,822	595	*
Potatoes.....	37,399	2,356	2,790	949,613	46,225	63,076	2,454,497	100,311	*
Yam.....	*	*	*	*	*	*	81,207	782	-
Garlic.....	*	*	*	*	*	*	152,522	*	*
Taro/'Godere'...	-	-	-	1,587	*	*	47,218	620	*
Sweet potatoes..	-	-	-	*	*	*	192,423	6,038	*

Table 10.7(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

(S.N.N.P.R) Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	**362,943**	**32,573**	**13,034**	*	**28,720**	**102,685**	**18,291**	**835,625**	**84659**
Cereals	**162,240**	**21,342**	**8,805**	**28,928**	**7,308**	**42,942**	**13,076**	**236,796**	**36245**
Teff	-	-	-	11,119	*	*	*	12,089	*
Barley	*	*	*	8,566	1,456	*	*	4,842	423
Wheat	*	*	*	*	*	-	-	*	*
Maize	162,009	21,321	8,781	10,338	*	41,777	12,560	221,980	29095
Sorghum	*	*	*	*	*	*	*	7,289	428
Finger millet	-	-	-	-	-	-	-	*	*
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	*	*
Pulse	*	**1,614**	**1,007**	**11,681**	**690**	**23,061**	**1,193**	**276,425**	**20837**
Horse/Faba beans	-	-	-	-	-	-	-	*	*
Field peas	-	-	-	-	-	-	-	*	*
White Haricot beans	*	*	*	*	*	*	*	*	*
Red Haricot beans	*	1,613	1,007	11,080	679	19,094	1,079	259,394	20084
Chick peas	-	-	-	-	-	-	-	*	*
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	*	*	-	-	*	*
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	*	*	*	*	**11,431**	*
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	*	*
Safflower	-	-	-	-	-	-	-	*	*
Sesame	-	-	-	-	-	*	*	*	*
Rapeseed	-	-	-	*	*	-	-	-	-
Vegetables.....	*	*	*	*	*	*	*	**81,073**	*
Lettuce.....	*	*	-	-	-	-	-	-	-
Head Cabbage....	*	*	*	*	*	*	*	*	*
Ethiopian Cabbage	*	*	*	*	*	4,316	*	60,166	848
Tomatoes.....	*	*	*	*	*	*	*	*	*
Green peppers...	*	*	-	*	*	*	*	*	*
Red peppers.....	-	-	-	-	-	-	-	*	*
Swiss chard.....	*	*	-	-	-	-	-	*	*
Root Crops.....	**146,093**	**5,921**	*	*	*	*	**788**	**520,236**	**23052**
Beetroot.....	9,167	*	*	*	*	*	*	*	*
Carrot.....	*	*	-	*	*	*	*	*	*
Onion.....	*	*	*	*	*	*	*	*	*
Potatoes.....	108,249	5,574	*	*	*	*	*	452,314	21193
Yam.....	-	-	-	-	-	-	-	*	*
Garlic.....	*	*	-	-	-	*	*	*	*
Taro/'Godere'...	*	*	*	*	*	-	-	4,511	58
Sweet potatoes..	-	-	-	-	-	*	*	*	*

Table 10.8: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Gambella Region

Crop type	*All crop land Area*	*All Fertilizer*		*Natural*		*DAP*		
		Hectare	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**9,139**	*	-	*	*	-	-	-
Cereals	**8,357**	*	-	*	*	-	-	-
Teff	*	-	-	-	-	-	-	-
Barley	*	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	8,299	*	-	*	*	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Finger millet	*	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-
Rice	*	-	-	-	-	-	-	-
Pulse	*	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	-	-
Red Haricot beans	*	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oil seeds	**743**	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	*	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	732	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables.....	*	-	-	-	-	-	-	-
Lettuce.....	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-
Ethiopian Cabbage	*	-	-	-	-	-	-	-
Tomatoes.....	*	-	-	-	-	-	-	-
Green peppers...	-	-	-	-	-	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-
Root Crops.....	*	-	-	-	-	-	-	-
Beetroot.....	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-
Onion.....	-	-	-	-	-	-	-	-
Potatoes.....	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-
Garlic.....	*	-	-	-	-	-	-	-
Taro/'Godere'...	*	-	-	-	-	-	-	-
Sweet potatoes..	*	-	-	-	-	-	-	-

Table 10.8(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Gambella Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*
All	**-**	**-**	**-**	**-**	**-**	**-**	**43,739**	**9,137**	**3081**
Cereals	**-**	**-**	**-**	**-**	**-**	**-**	**42,694**	**8,356**	**2990**
Teff	-	-	-	-	-	-	*	*	*
Barley	-	-	-	-	-	-	*	*	*
Wheat	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	42,611	8,297	2977
Sorghum	-	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	*	*	*
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	*	*	*
Pulse	**-**	**-**	**-**	**-**	**-**	**-**	*****	*****	*****
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	-	*	*	*
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	**-**	**-**	**-**	**-**	**-**	**-**	**1,313**	**743**	**83**
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	*	*	*
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	1,313	732	81
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	**-**	**-**	**-**	**-**	**-**	**-**	*****	*****	*****
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	*	*	*
Tomatoes.....	-	-	-	-	-	-	*	*	-
Green peppers...	-	-	-	-	-	-	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	**-**	**-**	**-**	**-**	**-**	**-**	*****	*****	**-**
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	-	-	-	-	-	-	-	-	-
Potatoes.....	-	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	*	*	-
Taro/'Godere'...	-	-	-	-	-	-	*	*	-
Sweet potatoes..	-	-	-	-	-	-	*	*	-

Table 10.8(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Gambella Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	*	*	*	*	*	*	*	*	*
Cereals	*	*	*	*	*	-	-	*	*
Teff	-	-	-	*	*	-	-	-	-
Barley	-	-	-	*	*	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-
Maize	*	*	*	*	*	-	-	*	*
Sorghum	-	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	*	*	*	*	*	*
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	*	*	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	*	*	*	*
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	-	-	-	-	-	*	*	-	-
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	-	-	-	-	-	*	*	-	-
Green peppers...	-	-	-	-	-	-	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	-	-	-	-	-	-	-	-	-
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	-	-	-	-	-	-	-	-	-
Potatoes.....	-	-	-	-	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	-	-	-

Table 10.9: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Harari Region

	All crop	*All Fertilizer*		*Natural*		*DAP*		
Crop type	*land Area*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**1,774**	**1,432**	**2,124**	**7,990**	**573**	**3,420**	**231**	*
Cereals	**850**	**580**	**738**	**5,572**	**301**	*	*	*
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	*	*	*	3,803	*	*	*	*
Sorghum	271	249	632	*	*	*	*	*
Finger millet	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	**233**	**205**	*	*	*	*	*	*
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
White Haricot beans	*	*	*	*	*	*	*	*
Red Haricot beans	*	*	*	*	*	*	*	*
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables.....	*	*	*	*	*	*	*	*
Lettuce.....	-	-	-	-	-	-	-	-
Head Cabbage....	*	*	*	-	-	-	-	-
Ethiopian Cabbage	*	*	*	*	*	*	*	*
Tomatoes.....	*	*	-	*	*	-	-	-
Green peppers...	*	-	-	-	-	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-
Root Crops.....	*	*	**1,199**	**2,899**	*	*	*	*
Beetroot.....	*	*	*	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-
Onion.....	*	*	-	*	*	-	-	-
Potatoes.....	*	*	*	2,061	*	*	*	*
Yam.....	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-
Sweet potatoes..	*	*	*	*	*	-	-	-

Table 10.9(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Harari Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*
All	*	*	*	*	*	*	**21,237**	**1,239**	*
Cereals	*	*	*	*	*	*	*	*	*
Teff	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	*	*	*
Sorghum	*	*	*	*	*	*	-	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	*	*	*	**8,123**	**233**	*
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	*	*	*
Red Haricot beans	-	-	-	*	*	*	5,996	*	*
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	-	-	-	*	*	*	**3,150**	*	-
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	*	*	*	*	*	-
Ethiopian Cabbage	-	-	-	-	-	-	*	*	-
Tomatoes.....	-	-	-	-	-	-	-	-	-
Green peppers...	-	-	-	-	-	-	*	*	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	*	*	*	*	*	*	**8,971**	*	-
Beetroot.....	-	-	-	*	*	*	*	*	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	-	-	-	-	-	-	-	-	-
Potatoes.....	*	*	*	*	*	*	7,458	*	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	*	*	*	-	-	-	*	*	-

Table 10.9(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Harari Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	*	*	*	-	-	3,103	134	7,827	432
Cereals	*	*	*	-	-	*	*	4,448	201
Teff	-	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-
Maize	*	*	*	-	-	*	*	*	*
Sorghum	-	-	-	-	-	*	*	*	*
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	-	*	*
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	-	-	*	*
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	*	*	-	-	-	*	*	*	*
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	*	*	-	-	-	*	*	*	*
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	*	*	-	-	-	*	*	-	-
Green peppers...	-	-	-	-	-	-	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	*	*	-	-	-	*	*	*	*
Beetroot.....	-	-	-	-	-	*	*	*	*
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	*	*	-	-	-	*	*	-	-
Potatoes.....	-	-	-	-	-	*	*	*	*
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	*	*	-	-

Table 10.10: Number of Holders,Inputs Applied Area and Quantity of Inputs used

Dire Dawa Region

	All crop	*All Fertilizer*		*Natural*		*DAP*		
Crop type	*land Area*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Quintal*
All	**300**	**235**	*	**3,439**	**205**	**-**	**-**	**-**
Cereals	**181**	**132**	*	**1,913**	**131**	**-**	**-**	**-**
Teff	-	-	-	-	-	-	-	-
Barley	*	*	*	*	*	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	175	127	*	1,913	127	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	*	*	-	*	*	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	-	-
Red Haricot beans	*	*	-	*	*	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oil seeds	*	*	-	*	*	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	*	*	-	*	*	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables.....	**81**	**71**	*	**2,216**	**67**	**-**	**-**	**-**
Lettuce.....	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes.....	54	54	*	1,842	50	-	-	-
Green peppers...	*	*	-	*	*	-	-	-
Red peppers.....	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-
Root Crops.....	*	*	*	**366**	**7**	**-**	**-**	**-**
Beetroot.....	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-
Onion.....	*	*	-	*	*	-	-	-
Potatoes.....	*	*	*	-	-	-	-	-
Yam.....	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-
Sweet potatoes..	8	4	-	225	4	-	-	-

Table 10.10(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Dire Dawa Region

	UREA			*UREA + DAP*			*Indigenous seed*		
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Quintal*
All	*	*	*	*	*	*	**4,154**	**292**	**63**
Cereals	*	*	*	-	-	-	**2,327**	**180**	**63**
Teff	-	-	-	-	-	-	-	-	-
Barley	*	*	*	-	-	-	*	*	*
Wheat	-	-	-	-	-	-	-	-	-
Maize	*	*	*	-	-	-	2,327	175	61
Sorghum	-	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	*	*	*
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	-	*	*	*
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	*	*	*	-	-	-	**2,319**	**76**	-
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	*	*	*	-	-	-	1,891	50	-
Green peppers...	-	-	-	-	-	-	*	*	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	*	*	*	*	*	*	**1,012**	*	-
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	-	-	-	-	-	-	*	*	-
Potatoes.....	*	*	*	*	*	*	*	*	-
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	-	*	5	-

Table 10.10(*Cont'd*): Number of Holders,Inputs Applied Area and Quantity of Inputs used

Dire Dawa Region

	Improved seed			*Pesticide*		*Irrigation*		*Extension package*	
Crop type	*Holder*	*Hectare*	*Quintal*	*Holder*	*Hectare*	*Holder*	*Hectare*	*Holder*	*Hectare*
All	*	*	*	*	*	**3,558**	**282**	*	*
Cereals	*	*	*	*	*	**2,225**	*	*	*
Teff	-	-	-	-	-	-	-	-	-
Barley	*	*	*	-	-	*	*	*	*
Wheat	-	-	-	-	-	-	-	-	-
Maize	-	-	-	*	*	2,225	*	*	*
Sorghum	-	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	*	*	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-	-
White Haricot beans	-	-	-	-	-	-	-	-	-
Red Haricot beans	-	-	-	-	-	*	*	-	-
Chick peas	-	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	*	*	-	-
Nueg	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	*	*	-	-
Rapeseed	-	-	-	-	-	-	-	-	-
Vegetables.....	*	*	-	-	-	**1,757**	**68**	-	-
Lettuce.....	-	-	-	-	-	-	-	-	-
Head Cabbage....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-	-
Tomatoes.....	*	*	-	-	-	1,330	41	-	-
Green peppers...	-	-	-	-	-	*	*	-	-
Red peppers.....	-	-	-	-	-	-	-	-	-
Swiss chard.....	-	-	-	-	-	-	-	-	-
Root Crops.....	-	-	-	-	-	*	*	*	*
Beetroot.....	-	-	-	-	-	-	-	-	-
Carrot.....	-	-	-	-	-	-	-	-	-
Onion.....	-	-	-	-	-	*	*	-	-
Potatoes.....	-	-	-	-	-	*	*	*	*
Yam.....	-	-	-	-	-	-	-	-	-
Garlic.....	-	-	-	-	-	-	-	-	-
Taro/'Godere'...	-	-	-	-	-	-	-	-	-
Sweet potatoes..	-	-	-	-	-	363	7	-	-

Table 21. Holders Applying Inputs by Age group
National

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	33,755	*	*	1,195	6,625
18 - 20	132,924	39,745	6,092	4,315	9,901
21 - 24	294,665	69,218	16,792	20,067	35,206
25 - 29	946,730	246,575	45,403	48,751	83,979
30 - 39	2,473,584	738,427	148,237	170,713	231,717
40 - 49	2,160,515	798,735	146,409	165,065	166,602
50 - 59	1,474,266	524,736	72,199	104,432	151,740
60 and above	1,915,698	716,878	85,096	*	121,825
Not stated	4,240	*	-	*	*
Total	9,436,376	3,147,074	522,287	726,666	807,875

Table 21.1 Holders Applying Inputs by Age group
Tigray

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	-	-	-	-	-
18 - 20	-	-	-	-	-
21 - 24	*	-	-	-	*
25 - 29	*	*	-	-	*
30 - 39	8,739	5,569	*	-	*
40 - 49	11,750	8,199	*	-	8,199
50 - 59	7,529	*	-	-	*
60 and above	8,652	*	-	-	*
Not stated	-	-	-	-	-
Total	38,022	23,227	*	-	21,891

Table 21.2 Holders Applying Inputs by Age group
Afar

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	-	-	-	-	-
18 - 20	*	-	*	-	*
21 - 24	*	-	*	-	*
25 - 29	2,855	-	957	-	2,855
30 - 39	8,147	-	2,813	-	8,147
40 - 49	7,144	-	3,224	-	7,058
50 - 59	3,470	-	*	-	3,470
60 and above	3,041	-	1,098	-	3,041
Not stated	-	-	-	-	-
Total	26,451	-	9,184	-	26,365

Table 21.3 Holders Applying Inputs by Age group
Amhara

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	2,140	-	-	-	*
18 - 20	9,970	*	*	*	*
21 - 24	28,628	10,852	*	*	12,510
25 - 29	76,380	21,505	*	*	21,618
30 - 39	254,621	66,253	12,078	*	80,894
40 - 49	191,108	54,464	6,126	7,085	57,246
50 - 59	170,900	35,523	7,641	*	53,816
60 and above	213,901	42,527	3,049	3,003	42,283
Not stated	*	-	-	-	*
Total	948,483	232,061	30,131	30,735	273,648

Table 21.4 Holders Applying Inputs by Age group
Oromia

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	15,141	3,943	*	776	*
18 - 20	47,524	11,175	*	3,591	4,041
21 - 24	131,276	32,607	7,470	12,838	18,347
25 - 29	379,573	97,968	17,701	38,346	42,891
30 - 39	816,122	182,109	26,567	69,842	108,607
40 - 49	591,875	154,772	29,878	61,350	64,082
50 - 59	422,877	85,988	9,502	30,303	61,527
60 and above	475,490	100,267	14,634	38,531	54,551
Not stated	*	-	-	*	-
Total	2,880,185	668,828	108,480	255,885	359,896

Table 21.5 Holders Applying Inputs by Age group
Somale

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	*	-	-	-	*
18 - 20	*	-	-	-	-
21 - 24	*	-	-	-	*
25 - 29	3,138	*	*	*	*
30 - 39	6,461	*	*	*	2,830
40 - 49	4,654	*	*	*	*
50 - 59	3,273	-	*	-	*
60 and above	4,890	*	*	*	*
Not stated	-	-	-	-	-
Total	22,918	*	*	*	9,174

Table 21.6 Holders Applying Inputs by Age group Benshangul-Gumuz

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	**87**	*	*	-	*
18 - 20	994	-	-	-	*
21 - 24	1,084	-	-	-	*
25 - 29	3,950	*	*	-	*
30 - 39	7,762	*	*	*	1,939
40 - 49	5,627	*	*	-	1,572
50 - 59	5,077	*	*	-	1,244
60 and above	5,497	*	-	-	1,533
Not stated	-	-	-	-	-
Total	30,078	*	715	*	7,532

Table 21.7 Holders Applying Inputs by Age group (S.N.N.P.R)

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	16,193	*	*	*	-
18 - 20	73,360	27,633	*	*	*
21 - 24	127,152	24,229	8,754	*	*
25 - 29	474,103	125,070	25,422	8,269	*
30 - 39	1,351,265	480,941	103,636	89,968	23,248
40 - 49	1,327,844	576,692	101,662	*	23,295
50 - 59	849,009	397,256	53,685	*	25,069
60 and above	1,196,743	566,210	65,081	*	*
Not stated	*	*	-	-	-
Total	5,418,768	2,206,819	362,943	*	102,685

Table 21. 8 Holders Applying Inputs by Age group Gambela

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	*	-	-	-	-
18 - 20	111	-	-	-	-
21 - 24	674	-	-	-	*
25 - 29	4,214	-	-	*	-
30 - 39	11,381	-	*	*	-
40 - 49	12,976	-	-	*	*
50 - 59	8,682	-	-	*	-
60 and above	5,672	-	-	*	-
Not stated	-	-	-	-	-
Total	43,783	-	*	*	*

Table 21. 9 Holders Applying Inputs by Age group

Harari

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	-	-	-	-	-
18 - 20	*	-	-	-	-
21 - 24	3,238	*	-	-	-
25 - 29	*	*	-	-	-
30 - 39	7,820	2,485	-	-	*
40 - 49	6,449	3,044	*	-	*
50 - 59	2,602	1,189	*	-	*
60 and above	*	*	-	-	-
Not stated	-	-	-	-	-
Total	23,415	9,939	*	-	3,103

Table 21.10 Holders Applying Inputs by Age group

Dire Dawa

Age group	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Below 18	-	-	-	-	-
18 - 20	*	-	-	-	*
21 - 24	365	-	-	-	365
25 - 29	365	*	-	-	365
30 - 39	1,267	*	*	*	909
40 - 49	1,088	-	*	-	969
50 - 59	846	*	*	-	846
60 and above	*	-	-	-	*
Not stated	-	-	-	-	-
Total	4,274	*	*	*	3,558

Table 22 Holders Applying Inputs by Educational Status
National

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	5,488,401	675,291	144,762	126,187	319,121
Literate	620,461	101,014	15,125	17,571	53,673
Grades 1 - 3	1,103,392	175,184	38,568	40,274	60,695
Grades 4 - 6	1,388,279	228,038	55,567	45,912	55,869
Grades 7 - 8	594,606	116,631	36,168	20,389	29,031
Grades 9 - 11	192,985	33,216	6,625	3,555	5,562
Grade 12 complete	31,363	5,305	4,721	*	*
Above grade 12	16,889	4,941	3,361	*	*
Total	9,436,376	1,339,618	304,897	255,423	526,710

Table 22.1 Holders Applying Inputs by Educational Status
Tigray

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	20,815	10,853	-	-	10,127
Literate	7,287	*	-	-	*
Grades 1 - 3	*	*	*	-	*
Grades 4 - 6	*	*	*	-	*
Grades 7 - 8	*	-	-	-	-
Grades 9 - 11	*	*	-	-	*
Grade 12 complete	-	-	-	-	-
Above grade 12	-	-	-	-	-
Total	38,022	21,007	*	-	19,670

Table 22.2 Holders Applying Inputs by Educational Status
Afar

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	22,597	-	7,531	-	22,301
Literate	*	-	*	-	*
Grades 1 - 3	791	-	*	-	705
Grades 4 - 6	955	-	*	-	955
Grades 7 - 8	*	-	*	-	*
Grades 9 - 11	-	-	-	-	-
Grade 12 complete	-	-	-	-	-
Above grade 12	-	-	-	-	-
Total	26,451	-	8,930	-	26,069

Table 22.3 Holders Applying Inputs by Educational Status
Amhara

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	627,474	70,952	*	*	100,313
Literate	160,751	30,144	*	*	26,547
Grades 1 - 3	57,678	10,446	*	*	16,667
Grades 4 - 6	73,745	9,577	*	*	12,334
Grades 7 - 8	23,217	2,077	*	*	8,217
Grades 9 - 11	5,244	*	-	-	*
Grade 12 complete	*	-	-	-	*
Above grade 12	-	-	-	-	-
Total	948,483	123,316	*	*	164,907

Table 22.4 Holders Applying Inputs by Educational Status
Oromia

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	1,617,818	235,856	57,680	88,164	149,917
Literate	196,906	46,579	8,548	11,579	17,025
Grades 1 - 3	415,184	74,311	13,336	34,812	35,394
Grades 4 - 6	424,623	74,301	11,360	37,754	32,928
Grades 7 - 8	172,780	30,273	2,911	16,097	13,816
Grades 9 - 11	41,487	7,973	*	3,452	3,217
Grade 12 complete	5,251	*	-	*	*
Above grade 12	6,136	*	*	*	*
Total	2,880,185	472,162	97,410	192,885	253,427

Table 22.5 Holders Applying Inputs by Educational Status
Somale

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	14,109	*	*	*	*
Literate	4,460	-	-	*	*
Grades 1 - 3	2,440	-	-	-	*
Grades 4 - 6	1,058	-	-	-	-
Grades 7 - 8	*	-	-	-	*
Grades 9 - 11	*	-	-	-	-
Grade 12 complete	-	-	-	-	-
Above grade 12	-	-	-	-	-
Total	22,918	*	*	*	*

Table 22.6 Holders Applying Inputs by Educational Status Benshangul-Gumuz

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	17,267	*	*	-	2,322
Literate	4,206	*	-	-	478
Grades 1 - 3	3,961	*	-	-	*
Grades 4 - 6	2,737	-	-	-	562
Grades 7 - 8	1,833	*	-	-	*
Grades 9 - 11	*	-	-	-	*
Grade 12 complete	-	-	-	-	-
Above grade 12	-	-	-	-	-
Total	30,078	*	*	-	5,214

Table 22.7 Holders Applying Inputs by Educational Status (S.N.N.P.R)

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	3,112,963	349,774	71,286	21,629	25,718
Literate	243,018	19,222	2,769	*	*
Grades 1 - 3	616,238	88,681	23,417	3,943	4,748
Grades 4 - 6	876,956	140,636	39,932	7,452	6,526
Grades 7 - 8	390,886	83,142	32,914	4,177	5,221
Grades 9 - 11	142,875	24,448	4,893	*	*
Grade 12 complete	25,130	4,926	4,721	-	*
Above grade 12	10,701	2,450	1,520	*	*
Total	5,418,768	713,279	181,451	38,371	45,543

Table 22.8 Holders Applying Inputs by Educational Status Gambela

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	34,977	-	*	*	*
Literate	126	-	-	*	-
Grades 1 - 3	1,582	-	-	-	-
Grades 4 - 6	3,420	-	-	*	-
Grades 7 - 8	2,360	-	-	*	-
Grades 9 - 11	658	-	-	-	-
Grade 12 complete	*	-	-	-	-
Above grade 12	*	-	-	-	-
Total	43,783	-	*	*	*

Table 22.9 Holders Applying Inputs by Educational Status
Harari

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	17,832	3,830	*	-	*
Literate	*	-	*	-	*
Grades 1 - 3	1,169	*	-	-	-
Grades 4 - 6	*	*	-	-	-
Grades 7 - 8	*	*	-	-	-
Grades 9 - 11	*	-	-	-	-
Grade 12 complete	-	-	-	-	-
Above grade 12	-	-	-	-	-
Total	23,415	5,652	*	-	*

Table 22.10 Holders Applying Inputs by Educational Status
Dire Dawa

Educational Status of Holders	All Crop Holders	Fertilizer	Improved Seed	Pesticide	Irrigation
Illiterate	2,548	*	*	*	1,461
Literate	*	-	-	-	*
Grades 1 - 3	413	-	-	-	192
Grades 4 - 6	466	-	-	-	*
Grades 7 - 8	*	-	-	-	*
Grades 9 - 11	*	-	-	-	*
Grade 12 complete	-	-	-	-	-
Above grade 12	-	-	-	-	-
Total	4,274	*	*	*	2,225

Table 23 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of Da
National

Cause of Damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	1,782,101	151,416	95,718	34,314	2,445
Crop disease	-	-	-	-	-
Frost or floods	121,645	6,957	4,039	1,897	302
Locust	16,146	433	212	116	*
Shortage of rain	1,780	*	*	*	*
Too much rain	58,769	3,946	2,286	880	*
Wild animals	23,934	297	*	*	*
Birds	129,328	6,222	3,377	1,691	*
Hailstone	1,162,547	111,865	71,894	25,685	*
Pests	23,417	1,160	581	*	*
Weeds	127,936	10,407	6,852	1,798	*
Others	228,288	9,971	6,355	1,656	56

Table 23.1 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D
Tigray

Cause of damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	28,183	*	*	*	-
Crop disease	-	-	-	-	-
Frost or floods	-	-	-	-	-
Locust	-	-	-	-	-
Shortage of rain	-	-	-	-	-
Too much rain	-	-	-	-	-
Wild animals	-	-	-	-	-
Birds	-	-	-	-	-
Hailstone	27,655	*	*	*	-
Pests	-	-	-	-	-
Weeds	-	-	-	-	-
Others	*	*	*	-	-

Table 23.2 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D
Afar

Cause of Damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	14,038	4,257	3,614	*	*
Crop disease	-	-	-	-	-
Frost or floods	5,101	*	*	-	*
Locust	-	-	-	-	-
Shortage of rain	*	*	-	-	-
Too much rain	1,406	280	231	-	-
Wild animals	-	-	-	-	-
Birds	*	*	*	-	-
Hailstone	*	*	-	-	-
Pests	-	-	-	-	-
Weeds	2,946	789	*	*	*
Others	4,715	1,536	1,272	-	-

Table 23.3 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D
Amhara

Cause of damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	411,600	73,829	51,273	*	*
Crop disease	-	-	-	-	-
Frost or floods	5,044	*	*	*	-
Locust	*	*	*	-	-
Shortage of rain	-	-	-	-	-
Too much rain	7,479	584	*	*	-
Wild animals	*	*	*	*	-
Birds	*	*	*	-	-
Hailstone	348,129	68,535	47,386	*	*
Pests	*	*	*	-	-
Weeds	*	*	*	*	-
Others	10,814	676	578	*	-

Table 23.4 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D
Oromia

Cause of Damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	581,419	40,678	25,077	9,276	892
Crop disease	-	-	-	-	-
Frost or floods	56,560	2,298	1,147	*	*
Locust	5,842	130	*	*	-
Shortage of rain	*	*	*	-	-
Too much rain	25,477	1,541	671	*	*
Wild animals	*	*	*	*	*
Birds	39,632	2,805	1,582	*	*
Hailstone	321,855	24,850	15,733	5,979	*
Pests	3,856	*	148	*	-
Weeds	53,342	4,873	3,248	635	*
Others	94,937	3,670	2,381	515	*

Table 23.5 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D Somale

Cause of Damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	11,886	929	*	*	-
Crop disease	-	-	-	-	-
Frost or floods	-	-	-	-	-
Locust	-	-	-	-	-
Shortage of rain	*	*	-	-	-
Too much rain	-	-	-	-	-
Wild animals	-	-	-	-	-
Birds	*	*	*	-	-
Hailstone	*	*	*	*	-
Pests	-	-	-	-	-
Weeds	*	*	*	*	-
Others	*	*	*	-	-

Table 23.6 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D Benshangul-Gumuz

Cause of damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	3,415	53	29	*	-
Crop disease	-	-	-	-	-
Frost or floods	622	8	*	*	-
Locust	*	*	-	-	-
Shortage of rain	-	-	-	-	-
Too much rain	228	*	*	*	-
Wild animals	*	*	*	-	-
Birds	503	*	*	-	-
Hailstone	*	*	*	*	-
Pests	-	-	-	-	-
Weeds	634	*	*	*	-
Others	*	*	*	*	-

Table 23.7 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D (S.N.N.P.R)

Cause of damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	724,256	27,616	11,742	8,640	1,324
Crop disease	-	-	-	-	-
Frost or floods	53,676	2,748	1,228	1,013	*
Locust	*	205	*	*	*
Shortage of rain	*	*	*	*	-
Too much rain	24,132	1,533	*	*	*
Wild animals	*	*	*	*	-
Birds	86,138	3,177	1,594	885	*
Hailstone	457,449	14,186	5,076	4,292	*
Pests	14,762	630	360	158	*
Weeds	24,672	1,164	439	*	*
Others	112,437	3,814	2,030	1,130	*

Table 23.8 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D Gambela

Cause of Damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	3,539	228	*	-	23
Crop disease	-	-	-	-	-
Frost or floods	642	47	*	-	*
Locust	-	-	-	-	-
Shortage of rain	*	*	*	-	*
Too much rain	*	*	*	-	*
Wild animals	-	-	-	-	-
Birds	1,009	52	*	-	*
Hailstone	*	*	*	-	-
Pests	*	*	*	-	-
Weeds	*	*	*	-	-
Others	43	*	*	-	-

Table 23.9 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of D Harari

Cause of damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	*	*	-	-	-
Crop disease	-	-	-	-	-
Frost or floods	-	-	-	-	-
Locust	-	-	-	-	-
Shortage of rain	-	-	-	-	-
Too much rain	-	-	-	-	-
Wild animals	-	-	-	-	-
Birds	-	-	-	-	-
Hailstone	*	*	-	-	-
Pests	*	*	-	-	-
Weeds	-	-	-	-	-
Others	-	-	-	-	-

Table 23.10 Number of Holders and Damaged Crop Area in Hectare by Category of Crops and Cause of Dire Dawa

Cause of damage	All holders	All crops	Crop category		
			Cereals	Pulses	Oilseeds
All damage	*	*	*	*	-
Crop disease	-	-	-	-	-
Frost or floods	-	-	-	-	-
Locust	-	-	-	-	-
Shortage of rain	-	-	-	-	-
Too much rain	-	-	-	-	-
Wild animals	-	-	-	-	-
Birds	-	-	-	-	-
Hailstone	*	*	*	-	-
Pests	-	-	-	-	-
Weeds	*	*	*	*	-
Others	-	-	-	-	-

APPENDIX I

Estimation Procedures of Totals,

Ratios and Sampling Errors

APPENDIX I Estimation Procedures of Totals, Ratios and Sampling Errors

The following formulas were used to estimate total area of land under specific crop and production of specific crop in a stratum.

1. For Estimating Total Area of Land under Specific Crop:

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

in which, $W_{hi} = \frac{M_h H_{hi}}{n_h m_{hi} h_{hi}}$ is the basic weight.

Where:

h represents the stratum

n_h is the total number of sample EAs successfully covered in the hth stratum.

M_h is the measure of size of the hth stratum as obtained from the sampling frame.

m_{hi} is the measure of size of the ith sample EA in the hth stratum obtained from the sampling frame.

H_{hi} is the total number of agricultural households of the ith sample EA in the hth stratum.

h_{hi} is the number of sample agricultural households successfully covered in the ith sample EA in the hth stratum.

a_{hij} is the value of area for agricultural household j, in the ith EA in the hth strtatum under a specific crop.

a_{hi} is the sample total area under specific crop for EA i in stratum h

$\hat{A}_h$ estimate of total area under specific crop in stratum h

2. For Estimating Total Number of Holders :

$$Y_h = \sum_{i=1}^{n_h} W_{hi} H_{hi}$$

in which, $H_{hi} = a_{hi} * \overline{Y}_{hi}$

Where,

$\bar{Y}_{hi}$ is average yield per square meter of a specific crop in the i[th] EA in the h[th] stratum.

H_h is estimate of total quantity of production of a specific crop in the h[th] stratum.

H_{hi} is estimate of total quantity of production under specific crop for EA i in stratum h.

3. Sampling Variance of Estimates:

Sampling variance for the estimate of stratum total of area, production and yield for a specific crop are estimated by the following formulas.

$$Var(\hat{A}_h) = (1-f_h)\frac{n_h}{n_h-1}\sum_{i=1}^{n_h}\left(\hat{A}_{hi} - \frac{\hat{A}_h}{n_h}\right)^2 + f_h\sum_{i=1}^{n_h}(1-f_{hi})\left(\frac{h_{hi}}{h_{hi}-1}\right)\sum_{j=1}^{h_{hi}}\left(\hat{A}_{hij} - \frac{\hat{A}_{hi}}{h_{hi}}\right)^2$$

$$Var(\hat{\mathrm{P}}_h) = (1-f_h)\frac{n_h}{n_h-1}\sum_{i=1}^{n_h}\left(\hat{\mathrm{P}}_{hi} - \frac{\hat{\mathrm{P}}_h}{n_h}\right)^2 + f_h\sum_{i=1}^{n_h}(1-f_{hi})\left(\frac{h_{hi}}{h_{hi}-1}\right)\sum_{j=1}^{h_{hi}}\left(\hat{\mathrm{P}}_{hij} - \frac{\hat{\mathrm{P}}_{hi}}{h_{hi}}\right)^2$$

Where,

f_h = average first stage probability of selection of EAs within stratum *h*.

$f_{hi} = \frac{h_{hi}}{H_{hi}}$ = average second stage probability of selection within the *i*[th] sample EA in stratum *h*.

$\hat{A}_{hi}, \hat{\mathrm{P}}_{hi}$ are weighted total area and production, respectively, of a specific crop in the i[th] EA and h[th] Stratum.

$\hat{A}_{hij}, \hat{\mathrm{P}}_{hij}$ are weighted values of area and production, respectively, from j[th] agricultural household in the i[th] EA and h[th] stratum under a specific crop.

Since all strata are independent, the total variance at regional and country level is computed by aggregating the result obtained at Zone/Special Wereda level, i.e.

$$Var(\hat{A}) = \sum_h^L Var(\hat{A}_h), Var(\hat{\mathrm{P}}) = \sum_h^L Var(\hat{P}_h)$$

Where, *L* is the number of strata (Zone/Special Wereda).

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 simplifies the estimation procedure.

4. Coefficient of Variation (CV) of Estimates:

Coefficient of Variation (CV) in percentage of estimate of stratum total of area and production for a specific crop are given by:

$$CV(\hat{A}_h)=\frac{\sqrt{Var(\hat{A}_h)}}{\hat{A}_h}*100, CV(\hat{\mathrm{P}}_h)=\frac{\sqrt{Var(\hat{\mathrm{P}}_h)}}{\hat{\mathrm{P}}_h}*100,$$

5. Ninety-five Percent Confidence Interval (CI) of Stratum Total of Area:

$$\hat{A}_h \pm 1.96 * SE(\hat{A}_h) \quad ,$$

Where $SE(\hat{A}_h)=\sqrt{Var(\hat{A}_h)}$ is standard error of the estimate of the stratum total of area.

Estimates of standard error and confidence interval for the other estimates can also be calculated by adopting the above formulas.

APPENDIX II

Standard Errors and Coefficient of Variation for

Area and Production

TABLE 24. Estimates, Standard Errors and Coefficients of Variation for the Estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

National

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**5,958,394.00**	**162,281.92**	**2.72**	**1,174,149.08**	**45,291.29**	**3.86**	**8,934,466.27**	**450,372.82**	**5.04**
Cereals..... .	**4,840,670.00**	**156,977.24**	**3.24**	**883,968.04**	**37,874.42**	**4.28**	**7,595,452.91**	**420,380.68**	**5.53**
Teff..... .	351,269.00	57,671.11	16.42	88,551.20	12,718.55	14.36	524,729.43	81,029.09	15.44
Barley..... .	846,344.00	57,184.32	6.76	174,489.03	15,180.85	8.70	1,108,594.21	137,792.26	12.43
Wheat..... .	224,975.00	36,736.86	16.33	61,924.04	11,507.71	18.58	669,574.65	180,381.92	26.94
Maize..... .	3,790,697.00	147,533.57	3.89	516,144.81	31,102.07	6.03	5,050,727.64	343,598.36	6.80
Sorghum..... .	220,813.00	30,672.33	13.89	36,917.84	7,120.44	19.29	168,371.17	43,013.27	25.55
Finger millet..... .	5,004.00	1,644.15	32.86	315.06	129.06	40.96	16.43	9.05	55.06
Oats/'Aja'..... .	44,197.00	8,416.64	19.04	5,384.01	1,181.60	21.95	68,386.51	19,156.28	28.01
Rice..... .	1,233.00	552.44	44.79	242.04	147.48	60.93	5,052.87	4,923.53	97.44
Pulses..... .	**3,369,917.00**	**118,208.17**	**3.51**	**261,305.35**	**16,953.75**	**6.49**	**1,332,162.15**	**99,913.53**	**7.50**
Horse beans..... .	79,097.00	11,252.11	14.23	4,070.08	980.43	24.09	15,354.83	4,307.94	28.06
Field peas..... .	103,354.00	16,349.80	15.82	15,208.86	3,422.77	22.51	96,436.42	32,191.02	33.38
Haricot beans white...		411,785.00	44,015.05	10.69	25,800.73	5,177.97	20.07	141,093.40	27,236.95
Haricot beans red.....	2,721,231.00	110,146.75	4.05	170,930.00	10,737.63	6.28	938,309.53	76,126.70	8.11
Chick-peas..... .	43,267.00	18,016.34	41.64	4,802.86	2,129.54	44.34	18,779.65	8,847.45	47.11
Lentils..... .	57,330.00	16,419.72	28.64	8,605.28	3,245.60	37.72	209.14	124.59	59.57
Vetch..... .	23,507.00	12,354.10	52.55	4,769.04	3,433.89	72.00	1,644.76	1,290.02	78.43
Soya beans..... .	1,734.00	880.90	50.79	88.34	61.93	70.11	-	-	-
Fenugreek..... .	14,281.00	3,624.32	25.38	1,010.06	389.53	38.57	1,741.44	651.89	37.43
Mung bean/"Masho"..	79,023.00	21,946.27	27.77	26,016.81	9,068.81	34.86	118,592.97	50,239.25	42.36
Gibto..... .	25.00	22.76	90.29	3.29	2.97	90.29	-	-	-
Oilseeds..... .	**129,144.00**	**31,050.06**	**24.04**	**28,875.69**	**6,677.09**	**23.12**	**6,851.21**	**1,966.18**	**28.70**
Neug..... .	1,661.00	1,146.95	69.03	7.47	5.64	75.43	-	-	-
Linseed..... .	3,013.00	1,729.77	57.41	94.33	47.11	49.94	28.43	22.81	80.22
Groundnuts..... .	26,144.00	10,059.84	38.48	3,563.00	1,929.45	54.15	-	-	-
Sunflower..... .	2,583.00	837.18	32.41	64.60	33.04	51.15	-	-	-
Sesame..... .	58,019.00	12,621.29	21.75	24,668.22	6,045.05	24.51	6,822.78	1,966.05	28.82
Rapeseed..... .	40,545.00	26,533.07	65.44	478.07	297.18	62.16	-	-	-
Vegetables..... .	**2,572,564.00**	**287,660.26**	**11.18**	**41,641.19**	**5,547.57**	**13.32**	**2,695,255.51**	**418,545.35**	**15.53**
Lettuce..... .	3,312.00	1,418.50	42.83	23.33	13.87	59.45	310.95	252.39	81.17
Head Cabbage.....	90,453.00	27,457.01	30.36	3,256.85	2,108.80	64.75	117,863.48	73,500.02	62.36
Ethiopian Cabbage.....	2,369,577.00	286,124.99	12.07	32,131.25	4,443.51	13.83	2,265,432.93	396,016.47	17.48
Tomatoes..... .	106,385.00	32,668.26	30.71	3,677.86	1,456.22	39.59	227,883.11	91,216.62	40.03
Green peppers.....	135,347.00	44,358.65	32.77	2,066.26	915.01	44.28	76,578.43	41,253.21	53.87
Red peppers..... .	23,918.00	6,696.63	28.00	422.01	134.19	31.80	5,358.11	2,230.47	41.63
Swiss chard..... .	11,999.00	4,859.27	40.50	63.62	30.31	47.64	1,828.50	1,147.91	62.78
Root Crops..... .	**4,314,445.00**	**502,807.14**	**11.65**	**226,648.55**	**28,107.68**	**12.40**	**21,440,046.88**	**4,310,624.39**	**20.11**
Beetroot..... .	55,223.00	9,990.33	18.09	624.51	193.02	30.91	21,478.16	7,191.02	33.48
Carrot..... .	36,300.00	14,108.08	38.86	282.20	99.86	35.39	13,968.21	5,831.38	41.75
Onion..... .	289,910.00	41,352.85	14.26	21,047.61	6,925.40	32.90	844,378.48	267,774.21	31.71
Potatoes..... .	3,535,194.00	496,566.76	14.05	186,595.23	26,714.08	14.32	18,499,952.45	4,280,471.00	23.14
Yam/'Boye'..... .	87,606.00	27,274.43	31.13	802.69	280.30	34.92	119,525.80	47,580.28	39.81
Garlic..... .	317,065.00	56,520.66	17.83	7,197.74	3,387.79	47.07	500,462.73	202,078.62	40.38
Taro/'Godere'..... .	145,452.00	15,242.84	10.48	1,779.30	265.46	14.92	120,344.30	52,819.71	43.89
Sweet potatoes.....	260,913.00	28,982.58	11.11	8,319.27	1,133.76	13.63	1,319,936.75	220,874.10	16.73

TABLE 24.1 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Tigray

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**35076**	**9805.33**	**27.95**	**5591.9**	**2032.03**	**36.34**	**7700.87**	**4580.44**	**59.48**
Cereals.	**34450**	**9745.65**	**28.29**	**5491.7**	**2040.1**	**37.15**	**7700.87**	**4580.44**	**59.48**
Teff.	12187	7931.48	65.08	3027.4	2157.92	71.28	-	-	-
Barley.	6035	3976.94	65.9	775.84	523.71	67.5	6989.74	4626.84	66.19
Wheat.	2902	2889.31	99.55	668.75	665.95	99.58	-	-	-
Maize.	14051	8545.22	60.82	1019.71	533.28	52.3	711.13	387.83	54.54
Sorghum.	-	-	-	-	-	-	-	-	-
Finger millet.	-	-	-	-	-	-	-	-	-
Oats/'Aja'.	-	-	-	-	-	-	-	-	-
Rice.	-	-	-	-	-	-	-	-	-
Pulses.	**1253**	**1248.33**	**99.63**	**100.21**	**99.85**	**99.64**	**-**	**-**	**-**
Horse beans.	-	-	-	-	-	-	-	-	-
Field peas.	626	625.46	99.84	34.51	34.46	99.84	-	-	-
Haricot beans white...		-	-	-	-	-	-	-	-
Haricot beans red.....	-	-	-	-	-	-	-	-	-
Chick-peas.	-	-	-	-	-	-	-	-	-
Lentils.	626	625.46	99.84	59.21	59.12	99.84	-	-	-
Vetch.	-	-	-	-	-	-	-	-	-
Soya beans.	-	-	-	-	-	-	-	-	-
Fenugreek.	626	625.46	99.84	6.48	6.47	99.84	-	-	-
Mung bean/"Masho"..	-	-	-	-	-	-	-	-	-
Gibto.	-	-	-	-	-	-	-	-	-
Oilseeds.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Neug.	-	-	-	-	-	-	-	-	-
Linseed.	-	-	-	-	-	-	-	-	-
Groundnuts.	-	-	-	-	-	-	-	-	-
Sunflower.	-	-	-	-	-	-	-	-	-
Sesame.	-	-	-	-	-	-	-	-	-
Rapeseed.	-	-	-	-	-	-	-	-	-
Vegetables.	**1302**	**862.04**	**66.22**	**16.85**	**13.33**	**79.15**	**-**	**-**	**-**
Lettuce.	-	-	-	-	-	-	-	-	-
Head Cabbage.....	1302	862.04	66.22	13.52	10.16	75.16	-	-	-
Ethiopian Cabbage.....	-	-	-	-	-	-	-	-	-
Tomatoes.	-	-	-	-	-	-	-	-	-
Green peppers.....	-	-	-	-	-	-	-	-	-
Red peppers.	-	-	-	-	-	-	-	-	-
Swiss chard.	675	675.64	100.05	3.32	3.32	100.05	-	-	-
Root Crops.	**4248**	**1759.17**	**41.41**	**331.76**	**136.75**	**41.22**	**14762.89**	**10618.25**	**71.93**
Beetroot.	-	-	-	-	-	-	-	-	-
Carrot.	626	625.46	99.84	1.1	1.1	99.84	-	-	-
Onion.	2269	1531.44	67.48	154.07	101.88	66.13	14762.89	10618.25	71.93
Potatoes.	1979	1363.58	68.92	176.59	122.39	69.31	-	-	-
Yam/'Boye'.	-	-	-	-	-	-	-	-	-
Garlic.	-	-	-	-	-	-	-	-	-
Taro/'Godere'.....	-	-	-	-	-	-	-	-	-
Sweet potatoes.....	-	-	-	-	-	-	-	-	-

TABLE 24.2 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Afar

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**26155**	**4021.84**	**15.38**	**25385.45**	**4333.86**	**17.07**	**589678.42**	**116340.12**	**19.73**
Cereals.	**26155**	**4021.84**	**15.38**	**25313.7**	**4334.17**	**17.12**	**589678.42**	**116340.12**	**19.73**
Teff.	-	-	-	-	-	-	-	-	-
Barley.	-	-	-	-	-	-	-	-	-
Wheat.	40	40.24	100.35	0.27	0.27	100.35	-	-	-
Maize.	26029	4040.24	15.52	25250.3	4342.01	17.2	589678.42	116340.12	19.73
Sorghum.	182	102.94	56.43	63.12	42.02	66.56	-	-	-
Finger millet.	-	-	-	-	-	-	-	-	-
Oats/'Aja'.	-	-	-	-	-	-	-	-	-
Rice.	-	-	-	-	-	-	-	-	-
Pulses.	**547**	**401.49**	**73.43**	**56.51**	**52.5**	**92.9**	**-**	**-**	**-**
Horse beans.	-	-	-	-	-	-	-	-	-
Field peas.	-	-	-	-	-	-	-	-	-
Haricot beans white...		547	401.49	73.43	56.51	52.5	92.9	-	-
Haricot beans red.....	-	-	-	-	-	-	-	-	-
Chick-peas.	-	-	-	-	-	-	-	-	-
Lentils.	-	-	-	-	-	-	-	-	-
Vetch.	-	-	-	-	-	-	-	-	-
Soya beans.	-	-	-	-	-	-	-	-	-
Fenugreek.	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"..	-	-	-	-	-	-	-	-	-
Gibto.	-	-	-	-	-	-	-	-	-
Oilseeds.	**116**	**79.17**	**68.27**	**15.24**	**12.91**	**84.73**	**-**	**-**	**-**
Neug.	-	-	-	-	-	-	-	-	-
Linseed.	-	-	-	-	-	-	-	-	-
Groundnuts.	-	-	-	-	-	-	-	-	-
Sunflower.	-	-	-	-	-	-	-	-	-
Sesame.	116	79.17	68.27	15.24	12.91	84.73	-	-	-
Rapeseed.	-	-	-	-	-	-	-	-	-
Vegetables.	**2627**	**767.72**	**29.22**	**134.27**	**51.04**	**38.01**	**11762.29**	**8021.74**	**68.2**
Lettuce.	-	-	-	-	-	-	-	-	-
Head Cabbage.....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage.....	-	-	-	-	-	-	-	-	-
Tomatoes.	1694	724.88	42.8	81.29	44.68	54.97	10779.23	8058.58	74.76
Green peppers.....	1103	448.13	40.64	19.96	10.06	50.41	161.68	88.71	54.87
Red peppers.	966	378.97	39.22	33.02	17.54	53.13	821.38	536.98	65.37
Swiss chard.	-	-	-	-	-	-	-	-	-
Root Crops.	**1051**	**567.52**	**54.01**	**27.36**	**15.25**	**55.74**	**4942.17**	**2481.5**	**50.21**
Beetroot.	-	-	-	-	-	-	-	-	-
Carrot.	-	-	-	-	-	-	-	-	-
Onion.	1051	567.52	54.01	27.36	15.25	55.74	4942.17	2481.5	50.21
Potatoes.	-	-	-	-	-	-	-	-	-
Yam/'Boye'.	-	-	-	-	-	-	-	-	-
Garlic.	-	-	-	-	-	-	-	-	-
Taro/'Godere'.	-	-	-	-	-	-	-	-	-
Sweet potatoes.....	-	-	-	-	-	-	-	-	-

TABLE 24.3 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Amhara

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**713814**	**75330.37**	**10.55**	**180739.65**	**20569.67**	**11.38**	**659594.5**	**89937.5**	**13.64**
Cereals.	**610987**	**61535.38**	**10.07**	**133120.11**	**14111.86**	**10.6**	**513391.11**	**67947.94**	**13.24**
Teff.	144645	51333.24	35.49	25998.34	9541.35	36.7	71256.74	30145.53	42.31
Barley.	317057	37597.14	11.86	84629.8	12162	14.37	340448.65	60826.95	17.87
Wheat.	85140	30289.24	35.58	10733.33	4088.35	38.09	35033.96	15204.3	43.4
Maize.	120177	24747.09	20.59	11139.15	2510.2	22.53	66254.73	18422.93	27.81
Sorghum.	999	642.21	64.28	157.06	130.84	83.3	-	-	-
Finger millet.	-	-	-	-	-	-	-	-	-
Oats/'Aja'.	13397	5906.48	44.09	462.43	155.38	33.6	397.04	158.18	39.84
Rice.	-	-	-	-	-	-	-	-	-
Pulses.	**194681**	**41173.59**	**21.15**	**47546.76**	**11873.23**	**24.97**	**146203.39**	**50199.94**	**34.34**
Horse beans.	5305	4306.35	81.18	289.83	249.66	86.14	-	-	-
Field peas.	21551	8535.1	39.6	2360.17	1235.07	52.33	1302.55	777.7	59.71
Haricot beans white...		28548	20621.44	72.23	4926	4178.08	84.82	1970.35	1283.5
Haricot beans red.....	7954	3215.98	40.43	581.9	267.86	46.03	2130.82	1393.09	65.38
Chick-peas.	39155	17939.57	45.82	4317.43	2108.8	48.84	18779.65	8847.45	47.11
Lentils.	32619	10724.18	32.88	4010.36	1653.55	41.23	40.84	22.17	54.29
Vetch.	23507	12354.1	52.55	4769.04	3433.89	72	1644.76	1290.02	78.43
Soya beans.	-	-	-	-	-	-	-	-	-
Fenugreek.	8164	2926.83	35.85	329.61	122.68	37.22	1741.44	651.89	37.43
Mung bean/"Masho"..	78242	21941.68	28.04	25962.41	9068.72	34.93	118592.97	50239.25	42.36
Gibto.	-	-	-	-	-	-	-	-	-
Oilseeds.	**4620**	**2102.84**	**45.52**	**72.78**	**37.33**	**51.29**	**-**	**-**	**-**
Neug.	616	614.62	99.85	-	-	-	-	-	-
Linseed.	2059	1671.89	81.2	47.23	33.77	71.5	-	-	-
Groundnuts.	102	102.21	100.22	0.68	0.69	100.22	-	-	-
Sunflower.	-	-	-	-	-	-	-	-	-
Sesame.	-	-	-	-	-	-	-	-	-
Rapeseed.	1843	1193.3	64.73	24.87	15.92	64.04	-	-	-
Vegetables.	**33474**	**7675.52**	**22.93**	**1280.77**	**366.39**	**28.61**	**72022.69**	**28120.52**	**39.04**
Lettuce.	1950	1179.4	60.47	14.27	11.17	78.26	61.43	58.64	95.45
Head Cabbage.....	4149	1549.37	37.34	178.64	84.99	47.58	10468.88	4896.34	46.77
Ethiopian Cabbage.....	9080	2818.2	31.04	133.89	77.06	57.56	13638.02	10492.84	76.94
Tomatoes.	10920	5047.32	46.22	550.69	264.27	47.99	41134.69	22889.09	55.64
Green peppers.....	2808	1197.46	42.64	85.4	48.43	56.71	2461.34	2125.23	86.34
Red peppers.	11287	4567.08	40.46	315.36	125.5	39.8	4258.32	2156.85	50.65
Swiss chard.	697	664.93	95.43	2.53	2.43	95.99	-	-	-
Root Crops.	**436967**	**40820.9**	**9.34**	**38868.18**	**6721.74**	**17.29**	**1484582.88**	**340683.91**	**22.95**
Beetroot.	2741	1341.15	48.93	72.93	39.32	53.91	3187.05	1585.27	49.74
Carrot.	3479	1911.64	54.94	59.53	41.73	70.1	1848.73	1301.27	70.39
Onion.	76293	18084.56	23.7	6674.52	2514.38	37.67	514614.26	250489.33	48.68
Potatoes.	357172	36155.32	10.12	28507.16	4694.92	16.47	757017.93	147720.89	19.51
Yam/'Boye'.	-	-	-	-	-	-	-	-	-
Garlic.	39407	22559.36	57.25	3554.05	3099.89	87.22	207914.9	172177.36	82.81
Taro/'Godere'.	-	-	-	-	-	-	-	-	-
Sweet potatoes.....	-	-	-	-	-	-	-	-	-

TABLE 24.4 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Oromia

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**2449952**	**69041.4**	**2.82**	**537437.34**	**24806**	**4.62**	**4867522.31**	**350114.25**	**7.19**
Cereals..... .	**2096187**	**68587.27**	**3.27**	**431274.35**	**22426.68**	**5.2**	**4292206.57**	**333945.96**	**7.78**
Teff..... .	130426	21429.82	16.43	40829.39	6867.67	16.82	330887.23	69101.77	20.88
Barley..... .	381057	38584.46	10.13	75080.57	8738.37	11.64	667948.16	122024.24	18.27
Wheat..... .	131322	20537.93	15.64	49661.52	10733.17	21.61	632442.77	179738.1	28.42
Maize..... .	1647728	69260.05	4.2	239438.79	16954.91	7.08	2517001.59	245314.02	9.75
Sorghum..... .	124866	26455.8	21.19	21294.31	6340.63	29.78	75937.36	38457.26	50.64
Finger millet..... .	977	512.84	52.5	24.61	15.74	63.96	-	-	-
Oats/'Aja'..... .	30229	5980.2	19.78	4890.2	1171	23.95	67989.46	19155.63	28.17
Rice..... .	746	438.24	58.76	54.96	49.06	89.28	-	-	-
Pulses..... .	**1232330**	**64588**	**5.24**	**92358.41**	**8053.59**	**8.72**	**575287.32**	**56450.31**	**9.81**
Horse beans..... .	32952	5790.14	17.57	2497.73	898.37	35.97	12164.76	4242.38	34.87
Field peas..... .	61353	12694.84	20.69	12322.96	3190.27	25.89	92982.94	32177.33	34.61
Haricot beans white...		333743	35695.03	10.7	18971.38	2995.18	15.79	130884.04	26819.74
Haricot beans red.....	830650	64205.3	7.73	52923.91	5866.46	11.08	339087.27	39217.27	11.57
Chick-peas..... .	3113	1584.24	50.89	407.55	292.11	71.68	-	-	-
Lentils..... .	23478	12413.21	52.87	4522.46	2792.16	61.74	168.3	122.6	72.85
Vetch..... .	-	-	-	-	-	-	-	-	-
Soya beans..... .	691	484.21	70.05	25.58	20.7	80.93	-	-	-
Fenugreek..... .	3247	1581.71	48.71	645.57	368.93	57.15	-	-	-
Mung bean/"Masho"..	369	361.77	98.01	41.28	40.5	98.12	-	-	-
Gibto..... .	-	-	-	-	-	-	-	-	-
Oilseeds..... .	**57576**	**27177.85**	**47.2**	**13804.57**	**4887.04**	**35.4**	**28.43**	**22.81**	**80.22**
Neug..... .	-	-	-	-	-	-	-	-	-
Linseed..... .	563	322.91	57.36	44.53	32.81	73.69	28.43	22.81	80.22
Groundnuts..... .	6349	5967.79	94	412.47	371.36	90.03	-	-	-
Sunflower..... .	-	-	-	-	-	-	-	-	-
Sesame..... .	21758	7794.09	35.82	13007.86	4866.56	37.41	-	-	-
Rapeseed..... .	29130	25344.48	87.01	339.72	279.95	82.41	-	-	-
Vegetables..... .	**664139**	**58465.9**	**8.8**	**12481.05**	**1796.44**	**14.39**	**782079.17**	**98019.46**	**12.53**
Lettuce..... .	854	691.44	80.99	8.37	8.21	98.08	249.52	245.48	98.38
Head Cabbage..... .	33355	7467.71	22.39	502.23	209.46	41.71	18127.58	7583.74	41.84
Ethiopian Cabbage.....	566177	40181.65	7.1	9534.36	1388.47	14.56	656077.42	75181.32	11.46
Tomatoes..... .	53140	20440.21	38.46	1027.57	322.78	31.41	43666.76	15785.17	36.15
Green peppers..... .	101129	43732.73	43.24	1360.48	848.62	62.38	62157.41	40765.54	65.58
Red peppers..... .	1180	723.91	61.32	1.52	0.94	61.47	-	-	-
Swiss chard..... .	8508	4646.14	54.61	46.52	28.76	61.82	1800.48	1147.66	63.74
Root Crops..... .	**846028**	**89616.42**	**10.59**	**67318.4**	**12956**	**19.25**	**1012983.8**	**159112.1**	**15.71**
Beetroot..... .	30654	8564.25	27.94	405.84	181.51	44.72	17336.29	7007.76	40.42
Carrot..... .	5151	1972.36	38.29	38.4	22.44	58.44	631.31	510.85	80.92
Onion..... .	125823	35011.64	27.83	13163.2	6445.53	48.97	252415.88	93216.23	36.93
Potatoes..... .	573832	75014.06	13.07	49373.98	11100.08	22.48	546316.79	107021.49	19.59
Yam/'Boye'..... .	1386	1171.01	84.47	4.2	3.33	79.15	-	-	-
Garlic..... .	121233	19407.61	16.01	1877.17	517.17	27.55	149044.3	40708.26	27.31
Taro/'Godere'..... .	30811	7310.23	23.73	366.72	140.14	38.21	-	-	-
Sweet potatoes.....	60402	17271.73	28.59	2088.88	634.72	30.39	47239.23	19024.28	40.27

TABLE 24.5 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Somale

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**21626**	**4616.49**	**21.35**	**5786.28**	**1489.08**	**25.73**	**50535.25**	**14471.87**	**28.64**
Cereals..... .	**21156**	**4598.19**	**21.73**	**5159.45**	**1375.09**	**26.65**	**50288.04**	**14459.1**	**28.75**
Teff..... .	-	-	-	-	-	-	-	-	-
Barley..... .	-	-	-	-	-	-	-	-	-
Wheat..... .	-	-	-	-	-	-	-	-	-
Maize..... .	21156	4598.19	21.73	5107.97	1365.76	26.74	50288.04	14459.1	28.75
Sorghum..... .	765	612.79	80.09	51.48	39.98	77.67	-	-	-
Finger millet..... .	-	-	-	-	-	-	-	-	-
Oats/'Aja'..... .	-	-	-	-	-	-	-	-	-
Rice..... .	-	-	-	-	-	-	-	-	-
Pulses..... .	**6254**	**2736.14**	**43.75**	**626.84**	**352.47**	**56.23**	**247.21**	**130.81**	**52.92**
Horse beans..... .	113	113.45	100.44	2.14	2.15	100.44	-	-	-
Field peas..... .	-	-	-	-	-	-	-	-	-
Haricot beans white...		603	532.53	88.34	134.18	103.92	77.45	149.11	117.81
Haricot beans red.....	5539	2532.58	45.73	490.51	336.01	68.5	98.1	60.72	61.9
Chick-peas..... .	-	-	-	-	-	-	-	-	-
Lentils..... .	-	-	-	-	-	-	-	-	-
Vetch..... .	-	-	-	-	-	-	-	-	-
Soya beans..... .	-	-	-	-	-	-	-	-	-
Fenugreek..... .	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"..	-	-	-	-	-	-	-	-	-
Gibto..... .	-	-	-	-	-	-	-	-	-
Oilseeds..... .	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Neug..... .	-	-	-	-	-	-	-	-	-
Linseed..... .	-	-	-	-	-	-	-	-	-
Groundnuts..... .	-	-	-	-	-	-	-	-	-
Sunflower..... .	-	-	-	-	-	-	-	-	-
Sesame..... .	-	-	-	-	-	-	-	-	-
Rapeseed..... .	-	-	-	-	-	-	-	-	-
Vegetables..... .	**1461**	**173.84**	**11.9**	**66.77**	**21.86**	**32.73**	**2022.87**	**1364.62**	**67.46**
Lettuce..... .	-	-	-	-	-	-	-	-	-
Head Cabbage.....	42	42.99	102.08	0.11	0.11	102.08	-	-	-
Ethiopian Cabbage.....	-	-	-	-	-	-	-	-	-
Tomatoes..... .	1419	211.46	14.91	54.3	16	29.47	2022.87	1364.62	67.46
Green peppers.....	1082	506.13	46.8	12.36	6.11	49.4	-	-	-
Red peppers..... .	-	-	-	-	-	-	-	-	-
Swiss chard..... .	-	-	-	-	-	-	-	-	-
Root Crops..... .	**2911**	**1824.14**	**62.66**	**244.33**	**212.69**	**87.05**	**3411.82**	**2619**	**76.76**
Beetroot..... .	-	-	-	-	-	-	-	-	-
Carrot..... .	42	42.99	102.08	1.74	1.78	102.08	-	-	-
Onion..... .	2869	1833.9	63.92	240.04	212.91	88.7	3411.82	2619	76.76
Potatoes..... .	-	-	-	-	-	-	-	-	-
Yam/'Boye'..... .	-	-	-	-	-	-	-	-	-
Garlic..... .	42	42.99	102.08	0.27	0.27	102.08	-	-	-
Taro/'Godere'..... .	-	-	-	-	-	-	-	-	-
Sweet potatoes.....	84	79.68	94.59	2.28	2.18	95.47	-	-	-

TABLE 24.6 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Benshangul-Gumuz

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**26611**	**3181.87**	**11.96**	**2983.44**	**495.04**	**16.59**	**17228.18**	**5187.74**	**30.11**
Cereals.	**23941**	**2829.16**	**11.82**	**1716.12**	**296.78**	**17.29**	**7831.83**	**2192.58**	**28**
Teff.	-	-	-	-	-	-	-	-	-
Barley.	640	345.01	53.91	45.1	27.7	61.42	-	-	-
Wheat.	-	-	-	-	-	-	-	-	-
Maize.	23792	2827.23	11.88	1648.21	289.9	17.59	7831.83	2192.58	28
Sorghum.	247	108.38	43.79	22.81	11.87	52.05	-	-	-
Finger millet.	-	-	-	-	-	-	-	-	-
Oats/'Aja'.	-	-	-	-	-	-	-	-	-
Rice.	-	-	-	-	-	-	-	-	-
Pulses.	**23060**	**3281.76**	**14.23**	**1266.77**	**278.11**	**21.95**	**9396.35**	**3294.96**	**35.07**
Horse beans.	326	196.35	60.32	23.79	16.26	68.33	-	-	-
Field peas.	-	-	-	-	-	-	-	-	-
Haricot beans white...		1271	486.51	38.29	30.25	11.43	37.78	201.94	89.87
Haricot beans red.....	22232	3293.14	14.81	1211.76	279.73	23.08	9194.42	3303.83	35.93
Chick-peas.	-	-	-	-	-	-	-	-	-
Lentils.	-	-	-	-	-	-	-	-	-
Vetch.	-	-	-	-	-	-	-	-	-
Soya beans.	-	-	-	-	-	-	-	-	-
Fenugreek.	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"..	68	37.96	55.54	0.97	0.88	90.08	-	-	-
Gibto.	-	-	-	-	-	-	-	-	-
Oilseeds.	**25**	**23.64**	**96.04**	**0.54**	**0.52**	**96.04**	**-**	**-**	**-**
Neug.	-	-	-	-	-	-	-	-	-
Linseed.	25	23.64	96.04	0.54	0.52	96.04	-	-	-
Groundnuts.	-	-	-	-	-	-	-	-	-
Sunflower.	-	-	-	-	-	-	-	-	-
Sesame.	-	-	-	-	-	-	-	-	-
Rapeseed.	-	-	-	-	-	-	-	-	-
Vegetables.	**9650**	**1397.58**	**14.48**	**120.37**	**24.92**	**20.7**	**8465.58**	**2588.82**	**30.58**
Lettuce.	-	-	-	-	-	-	-	-	-
Head Cabbage.....	490	297.67	60.69	2.48	1.37	55.15	159.1	106.48	66.93
Ethiopian Cabbage.....	7977	1285.16	16.11	86.54	19.33	22.33	5461.8	2243.9	41.08
Tomatoes.	2006	730.72	36.43	21.07	9.94	47.17	2446.16	1310.33	53.57
Green peppers.....	1092	370.77	33.96	9.48	3.41	35.94	398.52	126.89	31.84
Red peppers.	24	25.65	105.08	0.28	0.29	105.08	-	-	-
Swiss chard.	277	276.06	99.82	0.52	0.52	99.82	-	-	-
Root Crops.	**7572**	**1517.69**	**20.04**	**134.26**	**40.15**	**29.91**	**317.08**	**172.57**	**54.42**
Beetroot.	-	-	-	-	-	-	-	-	-
Carrot.	-	-	-	-	-	-	-	-	-
Onion.	945	502.21	53.13	10.86	5.29	48.67	317.08	172.57	54.42
Potatoes.	5886	1682.11	28.58	113.37	42.02	37.06	-	-	-
Yam/'Boye'.	-	-	-	-	-	-	-	-	-
Garlic.	1372	490.58	35.76	7.65	3.14	41.06	-	-	-
Taro/'Godere'.	-	-	-	-	-	-	-	-	-
Sweet potatoes.....	330	130.72	39.63	2.38	1.03	43.44	-	-	-

TABLE 24.7 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey (S.N.N.P.R)

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**2621739**	**125422.65**	**4.78**	**405830.73**	**31403.59**	**7.74**	**2666758.25**	**241306.31**	**9.05**
Cereals.	**1966876**	**126458.46**	**6.43**	**272505.11**	**26574.03**	**9.75**	**2067966.32**	**216032.92**	**10.45**
Teff.	63985	12988.86	20.3	18689.34	4347.72	23.26	122585.47	29696.91	24.23
Barley.	141435	18756.35	13.26	13950.41	2431.02	17.43	93207.66	19376.95	20.79
Wheat.	5570	1414.92	25.4	860.17	261.11	30.36	2097.93	826.11	39.38
Maize.	1882492	127326.88	6.76	223489.04	25518.8	11.42	1752572.14	208924.46	11.92
Sorghum.	87633	15327.39	17.49	15057.87	3235.17	21.48	92433.81	19266.04	20.84
Finger millet.	3945	1559.91	39.55	247.28	120.53	48.74	16.43	9.05	55.06
Oats/'Aja'.	571	436.55	76.48	31.38	28.15	89.68	-	-	-
Rice.	458	335.1	73.16	179.62	138.88	77.32	5052.87	4923.53	97.44
Pulses.	**1903326**	**89871.95**	**4.72**	**119086.13**	**9020.46**	**7.57**	**598791.93**	**65297.9**	**10.9**
Horse beans.	40402	8630.66	21.36	1256.58	302.61	24.08	3190.07	748.66	23.47
Field peas.	19823	5737.41	28.94	491.22	104.74	21.32	2150.93	525.78	24.44
Haricot beans white...		44947	15269.23	33.97	1568.79	598.7	38.16	7101.12	4507.72
Haricot beans red.....	1848519	89296.31	4.83	115571.82	8978.52	7.77	586349.81	65140.9	11.11
Chick-peas.	999	500.67	50.13	77.88	50.5	64.84	-	-	-
Lentils.	606	346.72	57.19	13.24	7.27	54.92	-	-	-
Vetch.	-	-	-	-	-	-	-	-	-
Soya beans.	1043	735.88	70.55	62.76	58.37	93.01	-	-	-
Fenugreek.	2243	1294.72	57.73	28.4	23.16	81.53	-	-	-
Mung bean/"Masho"..	343	262.83	76.52	12.15	10.21	84.02	-	-	-
Gibto.	25	22.76	90.29	3.29	2.97	90.29	-	-	-
Oilseeds.	**65460**	**14864.44**	**22.71**	**14239.5**	**4544.84**	**31.92**	**-**	**-**	**-**
Neug.	1046	968.37	92.58	7.47	5.64	75.43	-	-	-
Linseed.	366	303.37	82.82	2.03	1.44	70.78	-	-	-
Groundnuts.	19666	8097.84	41.18	3139.11	1893.36	60.32	-	-	-
Sunflower.	2583	837.18	32.41	64.6	33.04	51.15	-	-	-
Sesame.	34798	9922.3	28.51	10912.8	3579.99	32.81	-	-	-
Rapeseed.	9572	7761.26	81.08	113.48	98.43	86.73	-	-	-
Vegetables.	**1853410**	**281539.91**	**15.19**	**27338.13**	**5235.02**	**19.15**	**1818152.17**	**405842.93**	**22.32**
Lettuce.	508	378.24	74.45	0.69	0.49	71.38	-	-	-
Head Cabbage.....	50070	26349.61	52.63	2548.51	2096.61	82.27	89107.92	72943.5	81.86
Ethiopian Cabbage.....	1785203	283270.9	15.87	22335.76	4220.11	18.89	1589962.44	388666.48	24.45
Tomatoes.	34406	24939.37	72.49	1848.51	1393.71	75.4	127375.92	86479.29	67.89
Green peppers.....	25423	7169.62	28.2	522.09	337.48	64.64	11399.47	5954.65	52.24
Red peppers.	10459	4828.91	46.17	71.84	44.13	61.43	278.41	186.22	66.89
Swiss chard.	1841	1025.24	55.68	10.74	8.64	80.44	28.02	23.8	84.93
Root Crops.	**3004762**	**493050.77**	**16.41**	**119108.55**	**24017.54**	**20.16**	**18914363.84**	**4294177.22**	**22.7**
Beetroot.	21530	4957.18	23.02	144.42	52.57	36.4	954.81	298.18	31.23
Carrot.	27002	13823.91	51.2	181.43	87.88	48.44	11488.17	5661.33	49.28
Onion.	79773	12261.52	15.37	759.61	194.91	25.66	53914.37	11960.99	22.19
Potatoes.	2588257	489520.86	18.91	107874.14	23838.47	22.1	17196617.74	4276582.39	24.87
Yam/'Boye'.	86219	27249.28	31.6	798.49	280.28	35.1	119525.8	47580.28	39.81
Garlic.	154997	48049.58	31	1758.51	1265.04	71.94	143503.53	97639.96	68.04
Taro/'Godere'.	114617	13375.5	11.67	1409.79	225.43	15.99	120320.86	52819.71	43.9
Sweet potatoes.....	198378	23248.05	11.72	6182.15	938.95	15.19	1268038.57	220015.5	17.35

TABLE 24.8 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Gambela

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**43709**	**3249.66**	**7.43**	**9129.74**	**1100.04**	**12.05**	**69106.12**	**11928.62**	**17.26**
Cereals..... .	**42737**	**3260.99**	**7.63**	**8357.26**	**1089.2**	**13.03**	**62283.34**	**11794.38**	**18.94**
Teff..... .	27	18.23	68.08	6.73	4.59	68.09	-	-	-
Barley..... .	13	9.61	71.8	1.1	0.79	71.8	-	-	-
Wheat..... .	-	-	-	-	-	-	-	-	-
Maize..... .	42655	3240.5	7.6	8298.78	1082.22	13.04	62283.34	11794.38	18.94
Sorghum..... .	-	-	-	-	-	-	-	-	-
Finger millet..... .	83	83.06	100.42	43.17	43.35	100.42	-	-	-
Oats/'Aja'..... .	-	-	-	-	-	-	-	-	-
Rice..... .	30	29	98.29	7.47	7.34	98.29	-	-	-
Pulses..... .	**187**	**121.34**	**64.73**	**29.57**	**19.22**	**64.99**	**-**	**-**	**-**
Horse beans..... .	-	-	-	-	-	-	-	-	-
Field peas..... .	-	-	-	-	-	-	-	-	-
Haricot beans white...		-	-	-	-	-	-	-	-
Haricot beans red.....	187	121.34	64.73	29.57	19.22	64.99	-	-	-
Chick-peas..... .	-	-	-	-	-	-	-	-	-
Lentils..... .	-	-	-	-	-	-	-	-	-
Vetch..... .	-	-	-	-	-	-	-	-	-
Soya beans..... .	-	-	-	-	-	-	-	-	-
Fenugreek..... .	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"..	-	-	-	-	-	-	-	-	-
Gibto..... .	-	-	-	-	-	-	-	-	-
Oilseeds..... .	**1313**	**299.36**	**22.8**	**742.91**	**207.9**	**27.98**	**6822.78**	**1966.05**	**28.82**
Neug..... .	-	-	-	-	-	-	-	-	-
Linseed..... .	-	-	-	-	-	-	-	-	-
Groundnuts..... .	27	18.23	68.08	10.74	7.37	68.64	-	-	-
Sunflower..... .	-	-	-	-	-	-	-	-	-
Sesame..... .	1313	299.36	22.8	732.17	206.87	28.25	6822.78	1966.05	28.82
Rapeseed..... .	-	-	-	-	-	-	-	-	-
Vegetables..... .	**135**	**71.33**	**52.88**	**5.31**	**3.01**	**56.59**	**750.74**	**488.4**	**65.06**
Lettuce..... .	-	-	-	-	-	-	-	-	-
Head Cabbage.....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage.....	124	70.94	57.21	3.63	2.56	70.63	293.25	205.3	70.01
Tomatoes..... .	11	10.72	98.3	1.69	1.66	98.3	457.49	449.73	98.3
Green peppers.....	-	-	-	-	-	-	-	-	-
Red peppers..... .	-	-	-	-	-	-	-	-	-
Swiss chard..... .	-	-	-	-	-	-	-	-	-
Root Crops..... .	77	48.92	63.6	3.54	3.13	88.38	61.08	40.14	65.73
Beetroot..... .	-	-	-	-	-	-	-	-	-
Carrot..... .	-	-	-	-	-	-	-	-	-
Onion..... .	-	-	-	-	-	-	-	-	-
Potatoes..... .	-	-	-	-	-	-	-	-	-
Yam/'Boye'..... .	-	-	-	-	-	-	-	-	-
Garlic..... .	13	9.61	71.8	0.09	0.07	71.8	-	-	-
Taro/'Godere'..... .	24	24.31	103.23	2.78	2.87	103.23	23.44	24.2	103.23
Sweet potatoes.....	40	27.42	68.59	0.67	0.42	62.51	37.64	23.42	62.22

TABLE 24.9 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Harari

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**17384**	**2903.54**	**16.7**	**1082.75**	**274.13**	**25.32**	**6342.36**	**1884.37**	**29.71**
Cereals.	**15855**	**2811.46**	**17.73**	**849.5**	**268.09**	**31.56**	**4106.41**	**1969.23**	**47.96**
Teff.	-	-	-	-	-	-	-	-	-
Barley.	-	-	-	-	-	-	-	-	-
Wheat.	-	-	-	-	-	-	-	-	-
Maize.	10290	3900	37.9	578.32	307.15	53.11	4106.41	1969.23	47.96
Sorghum.	6119	2267.91	37.06	271.18	100.37	37.01	-	-	-
Finger millet.	-	-	-	-	-	-	-	-	-
Oats/'Aja'.	-	-	-	-	-	-	-	-	-
Rice.	-	-	-	-	-	-	-	-	-
Pulses.	**8123**	**3054.33**	**37.6**	**233.25**	**111.58**	**47.84**	**2235.95**	**1162.15**	**51.98**
Horse beans.	-	-	-	-	-	-	-	-	-
Field peas.	-	-	-	-	-	-	-	-	-
Haricot beans white...		2127	2028.29	95.36	113.62	108.43	95.43	786.85	750.91
Haricot beans red.....	5996	2920.19	48.7	119.63	64.99	54.32	1449.1	1040.61	71.81
Chick-peas.	-	-	-	-	-	-	-	-	-
Lentils.	-	-	-	-	-	-	-	-	-
Vetch.	-	-	-	-	-	-	-	-	-
Soya beans.	-	-	-	-	-	-	-	-	-
Fenugreek.	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"..	-	-	-	-	-	-	-	-	-
Gibto.	-	-	-	-	-	-	-	-	-
Oilseeds.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Neug.	-	-	-	-	-	-	-	-	-
Linseed.	-	-	-	-	-	-	-	-	-
Groundnuts.	-	-	-	-	-	-	-	-	-
Sunflower.	-	-	-	-	-	-	-	-	-
Sesame.	-	-	-	-	-	-	-	-	-
Rapeseed.	-	-	-	-	-	-	-	-	-
Vegetables.	**3895**	**1707.48**	**43.84**	**116.67**	**65.03**	**55.73**	**-**	**-**	**-**
Lettuce.	-	-	-	-	-	-	-	-	-
Head Cabbage.....	1044	764.72	73.27	11.36	7.91	69.65	-	-	-
Ethiopian Cabbage.....	1017	972.02	95.55	37.08	35.52	95.79	-	-	-
Tomatoes.	745	744.8	99.93	38.5	38.48	99.93	-	-	-
Green peppers.....	1927	1215.92	63.11	29.73	19.15	64.4	-	-	-
Red peppers.	-	-	-	-	-	-	-	-	-
Swiss chard.	-	-	-	-	-	-	-	-	-
Root Crops.	**9716**	**3020.58**	**31.09**	**574.81**	**304.79**	**53.02**	**4621.31**	**4077**	**88.22**
Beetroot.	298	296.37	99.32	1.32	1.31	99.32	-	-	-
Carrot.	-	-	-	-	-	-	-	-	-
Onion.	745	744.8	99.93	15.42	15.41	99.93	-	-	-
Potatoes.	7458	2926.52	39.24	523.26	313.27	59.87	-	-	-
Yam/'Boye'.	-	-	-	-	-	-	-	-	-
Garlic.	-	-	-	-	-	-	-	-	-
Taro/'Godere'.	-	-	-	-	-	-	-	-	-
Sweet potatoes.....	1214	1069.56	88.09	34.81	30.22	86.82	4621.31	4077	88.22

TABLE 24.10 Estimates, Standard Errors and Coefficients of Varietion for the estimates of Holder, Area and Production of 2014/15 (2007 E.C) Belg Season Agricultural Sample Survey

Dire Dawa

Crop Type	Holders			Area(Ha)			Production in Quintals (Qt)		
	Estimate	S.E.	C.V.	Estimate	S.E.	C.V.	Estimate	S.E	C.V.
GRAIN CROPS	**2327**	**674.99**	**29.01**	**181.8**	**87.79**	**48.29**	-	-	-
Cereals.	**2327**	**674.99**	**29.01**	**180.76**	**87.86**	**48.6**	-	-	-
Teff.	-	-	-	-	-	-	-	-	-
Barley.	107	70.55	66	6.22	3.99	64.16	-	-	-
Wheat.	-	-	-	-	-	-	-	-	-
Maize.	2327	674.99	29.01	174.54	84.77	48.57	-	-	-
Sorghum.	-	-	-	-	-	-	-	-	-
Finger millet.	-	-	-	-	-	-	-	-	-
Oats/'Aja'.	-	-	-	-	-	-	-	-	-
Rice.	-	-	-	-	-	-	-	-	-
Pulses.	**155**	**104.47**	**67.5**	**0.9**	**0.59**	**65.74**	-	-	-
Horse beans.	-	-	-	-	-	-	-	-	-
Field peas.	-	-	-	-	-	-	-	-	-
Haricot beans white...		-	-	-	-	-	-	-	-
Haricot beans red.....	155	104.47	67.5	0.9	0.59	65.74	-	-	-
Chick-peas.	-	-	-	-	-	-	-	-	-
Lentils.	-	-	-	-	-	-	-	-	-
Vetch.	-	-	-	-	-	-	-	-	-
Soya beans.	-	-	-	-	-	-	-	-	-
Fenugreek.	-	-	-	-	-	-	-	-	-
Mung bean/"Masho"..	-	-	-	-	-	-	-	-	-
Gibto.	-	-	-	-	-	-	-	-	-
Oilseeds.	**34**	**33.87**	**98.53**	**0.15**	**0.14**	**98.53**	-	-	-
Neug.	-	-	-	-	-	-	-	-	-
Linseed.	-	-	-	-	-	-	-	-	-
Groundnuts.	-	-	-	-	-	-	-	-	-
Sunflower.	-	-	-	-	-	-	-	-	-
Sesame.	34	33.87	98.53	0.15	0.14	98.53	-	-	-
Rapeseed.	-	-	-	-	-	-	-	-	-
Vegetables.	**2472**	**544.96**	**22.04**	**80.99**	**23.17**	**28.6**	-	-	-
Lettuce.	-	-	-	-	-	-	-	-	-
Head Cabbage.....	-	-	-	-	-	-	-	-	-
Ethiopian Cabbage.....	-	-	-	-	-	-	-	-	-
Tomatoes.	2045	553.39	27.06	54.24	17.42	32.11	-	-	-
Green peppers.....	785	477.16	60.78	26.76	18	67.28	-	-	-
Red peppers.	-	-	-	-	-	-	-	-	-
Swiss chard.	-	-	-	-	-	-	-	-	-
Root Crops.	**1113**	**578.71**	**51.98**	**37.37**	**26**	**69.57**	-	-	-
Beetroot.	-	-	-	-	-	-	-	-	-
Carrot.	-	-	-	-	-	-	-	-	-
Onion.	141	98.55	70.09	2.53	2.13	84.37	-	-	-
Potatoes.	610	550.6	90.29	26.73	24.83	92.86	-	-	-
Yam/'Boye'.	-	-	-	-	-	-	-	-	-
Garlic.	-	-	-	-	-	-	-	-	-
Taro/'Godere'.	-	-	-	-	-	-	-	-	-
Sweet potatoes.....	465	192.69	41.48	8.11	2.87	35.38	-	-	-

APPENDIX III

STANDARDERRORS AND COEFFICIENT OF VARIETION FOR THE FARM MANAGEMENT PRACTICE

Table 25. Estimate of Number of Holders, Inputs Applied Area, Quantity of Inputs used and their Standard Errors and Coeffiecient of Varietion of Belg Crops, Agricultural Sample Survey of 2014/15 (2007 E.C)

National

Crop type	All Cropland Area			All Fertilizer						Natural					
	Area (Ha)			Area (Ha)			Quantity (Qt)			Holder			Area (Ha)		
	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV
All	**1442439.00**	**52273.00**	**3.62**	**656140.00**	**34606.00**	**5.27**	**562423.00**	**55660.00**	**9.90**	**4550738.00**	*******S**	**9.02**	**273318.00**	**21485.00**	**7.86**
Cereals	**883968.00**	**37874.00**	**4.28**	**318390.00**	**19426.00**	**6.10**	**206262.00**	**19852.00**	**9.62**	**1991471.00**	*******S**	**6.61**	**133921.00**	**10330.00**	**7.71**
Teff	88551.00	12719.00	14.36	21975.00	4314.00	19.63	13749.00	2873.00	20.90	21408.00	4887.00	22.83	2953.00	839.00	28.41
Barley	174489.00	15181.00	8.70	76946.00	8972.00	11.66	56383.00	8585.00	15.23	190426.00	26219.00	13.77	18285.00	3027.00	16.56
Wheat	61924.00	11508.00	18.58	39073.00	9477.00	24.26	31109.00	8476.00	27.25	67948.00	28160.00	41.44	8568.00	3742.00	43.68
Maize	516145.00	31102.00	6.03	167699.00	12360.00	7.37	100499.00	14052.00	13.98	1738770.00	*****S	7.27	95532.00	8516.00	8.91
Sorghum	36918.00	7120.00	19.29	11034.00	3223.00	29.21	3689.00	1100.00	29.81	83000.00	20005.00	24.10	8301.00	2554.00	30.77
Finger millet	315.00	129.00	40.96	49.00	24.00	49.61	5.00	5.00	99.50	1566.00	874.00	55.83	48.00	24.00	50.91
Oats/ 'Aja'	5384.00	1182.00	21.95	1611.00	577.00	35.83	819.00	335.00	40.93	9070.00	5233.00	57.70	235.00	126.00	53.59
Rice	242.00	147.00	60.93	4.00	2.00	63.10	9.00	8.00	90.25	365.00	363.00	99.27	-	-	99.27
Pulse	**261305.00**	**16954.00**	**6.49**	**105899.00**	**8082.00**	**7.63**	**83248.00**	**9538.00**	**11.46**	**1431512.00**	**85097.00**	**5.94**	**50400.00**	**5416.00**	**10.75**
Horse/Faba beans	4070.00	980.00	24.09	463.00	129.00	27.88	205.00	169.00	82.08	15662.00	2909.00	18.58	356.00	85.00	23.85
Field peas	15209.00	3423.00	22.51	1648.00	615.00	37.31	368.00	202.00	54.92	16612.00	4189.00	25.22	1434.00	606.00	42.24
White Haricot beans	25801.00	5178.00	20.07	8411.00	2130.00	25.33	5494.00	1700.00	30.94	170638.00	22108.00	12.96	5988.00	1953.00	32.61
Red Haricot beans	170930.00	10738.00	6.28	92636.00	7339.00	7.92	76777.00	9366.00	12.20	1239491.00	84285.00	6.80	40126.00	4285.00	10.68
Chick peas	4803.00	2130.00	44.34	1387.00	1213.00	87.46	62.00	53.00	85.96	6034.00	4187.00	69.39	1365.00	1213.00	88.85
Lentiles	8605.00	3246.00	37.72	522.00	262.00	50.12	218.00	149.00	68.39	3570.00	1502.00	42.06	395.00	231.00	58.44
Vetch/Grass peas	4769.00	3434.00	72.00	26.00	25.00	96.99	4.00	4.00	98.09	119.00	117.00	98.09	20.00	20.00	98.09
Soya beans	88.00	62.00	70.11	83.00	62.00	74.13	11.00	11.00	99.84	904.00	639.00	70.65	25.00	21.00	82.34
Fenugreek	1010.00	390.00	38.57	74.00	36.00	48.42	109.00	94.00	86.37	1146.00	667.00	58.17	43.00	26.00	60.00
Mung bean/"Masho"	26017.00	9069.00	34.86	649.00	331.00	50.97	-	-	-	3252.00	1854.00	57.02	649.00	331.00	50.97
Gibto	3.00	3.00	90.29	-	-	-	-	-	-	-	-	-	-	-	-
Oil seeds	**28876.00**	**6677.00**	**23.12**	**4412.00**	**1528.00**	**34.64**	**1589.00**	**720.00**	**45.29**	**42379.00**	**23948.00**	**56.51**	**1041.00**	**371.00**	**35.60**
Nueg	7.00	6.00	75.43	5.00	5.00	99.94	-	-	-	966.00	965.00	99.94	5.00	5.00	99.94
Linseed	94.00	47.00	49.94	9.00	8.00	91.36	-	-	-	220.00	193.00	87.74	9.00	8.00	91.36
Ground nuts	3563.00	1929.00	54.15	481.00	344.00	71.35	121.00	114.00	94.34	3808.00	2100.00	55.13	202.00	130.00	64.18
Safflower	65.00	33.00	51.15	16.00	9.00	59.39	105.00	94.00	89.54	349.00	190.00	54.47	12.00	9.00	76.39
Sesame	24668.00	6045.00	24.51	3505.00	1467.00	41.84	735.00	335.00	45.66	2155.00	858.00	39.81	454.00	256.00	56.43
Rapeseed	478.00	297.00	62.16	395.00	258.00	65.32	628.00	620.00	98.66	34937.00	23819.00	68.18	359.00	234.00	65.08
Vegetables	**41641.00**	**5548.00**	**13.32**	**31822.00**	**5404.00**	**16.98**	**46289.00**	**20535.00**	**44.36**	**1816308.00**	*******S**	**15.45**	**22455.00**	**4276.00**	**19.04**
Lettuce	23.00	14.00	59.45	19.00	13.00	69.22	13.00	12.00	95.99	1339.00	843.00	62.94	12.00	8.00	70.68
Head Cabbage	3257.00	2109.00	64.75	2999.00	2107.00	70.27	13795.00	10885.00	78.91	33714.00	8078.00	23.96	389.00	198.00	50.87
Ethiopian Cabbage	32131.00	4444.00	13.83	24474.00	4320.00	17.65	16110.00	4572.00	28.38	1736664.00	*****S	16.06	20845.00	4206.00	20.18
Tomatoes	3678.00	1456.00	39.59	2727.00	1427.00	52.32	9725.00	8310.00	85.45	37263.00	17246.00	46.28	449.00	154.00	34.36
Green peppers	2066.00	915.00	44.28	1374.00	727.00	52.89	4056.00	2599.00	64.09	64163.00	26924.00	41.96	658.00	398.00	60.46
Red peppers	422.00	134.00	31.80	187.00	78.00	41.41	1003.00	557.00	55.54	11128.00	3571.00	32.09	92.00	54.00	59.20
Swiss chard	64.00	30.00	47.64	42.00	20.00	46.52	1587.00	1439.00	90.65	5992.00	2272.00	37.92	10.00	4.00	44.26
Root Crops	**226649.00**	**28108.00**	**12.40**	**195617.00**	**27782.00**	**14.20**	**225035.00**	**39850.00**	**17.71**	**1853125.00**	*******S**	**18.54**	**65501.00**	**16712.00**	**25.51**
Beetroot	625.00	193.00	30.91	314.00	92.00	29.40	809.00	390.00	48.14	24425.00	6898.00	28.24	123.00	33.00	26.61
Carrot	282.00	100.00	35.39	250.00	92.00	36.68	317.00	154.00	48.47	19117.00	10377.00	54.28	103.00	46.00	44.56
Onion	21048.00	6925.00	32.90	17290.00	6725.00	38.89	45651.00	20289.00	44.44	118864.00	26579.00	22.36	2666.00	871.00	32.67
Potatoes	186595.00	26714.00	14.32	167174.00	26497.00	15.85	165210.00	32310.00	19.56	1428831.00	*****S	23.26	55981.00	16254.00	29.03
Yam	803.00	280.00	34.92	632.00	246.00	38.94	2501.00	1335.00	53.37	48187.00	17705.00	36.74	435.00	209.00	48.02
Garlic	7198.00	3388.00	47.07	5376.00	3352.00	62.35	8939.00	6168.00	69.00	175670.00	48637.00	27.69	1862.00	1265.00	67.92
Taro/'Godere'	1779.00	265.00	14.92	778.00	142.00	18.23	832.00	366.00	43.93	67473.00	9046.00	13.41	679.00	132.00	19.39
Sweet potatoes	8319.00	1134.00	13.63	3803.00	691.00	18.17	776.00	359.00	46.34	131544.00	18521.00	14.08	3652.00	682.00	18.67

Table 25 (Cont'd)

Crop type	DAP									UREA								
	Holder			Area (Ha)			Quintal			Holder			Hectare			Quintal		
	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV
All	**1682590**	*****S**	**13.12**	**232217**	**18832**	**8.11**	**273165**	**28941**	**10.59**	**180195**	**25674**	**14.25**	**23785**	**3428**	**14.4**	**40441**	**8932**	**22.09**
Cereals	**651162**	**50131**	**7.7**	**125711**	**13008**	**10.35**	**123086**	**14810**	**12.03**	**85143**	**13532**	**15.89**	**13485**	**2316**	**17.2**	**16929**	**4010**	**23.69**
Teff	39437	11345	28.77	10198	2301	22.56	4757	1011	21.25	8408	3938	46.84	2348	974	41.5	2441	1434	58.72
Barley	152263	22380	14.7	41053	6530	15.91	38260	6513	17.02	10916	3520	32.25	3089	1215	39.3	3956	2353	59.49
Wheat	63153	14056	22.26	27245	8251	30.28	26993	8080	29.93	1986	1025	51.6	485	233	48	375	175	46.62
Maize	435132	43849	10.08	43548	5325	12.23	50198	8481	16.89	61405	12372	20.15	7300	1628	22.3	9154	2818	30.78
Sorghum	21195	6713	31.67	2339	983	42.02	2069	964	46.61	5021	1898	37.8	263	123	46.7	1003	454	45.3
Finger millet	303	301	99.5	1	1	99.5	5	5	99.5	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	9628	4331	44.98	1324	519	39.17	795	320	40.19	-	-	-	-	-	-	-	-	-
Rice	211	170	80.35	3	2	68.38	9	8	90.25	-	-	-	-	-	-	-	-	-
Pulse	**584125**	**50433**	**8.63**	**43808**	**4968**	**11.34**	**55952**	**7453**	**13.32**	**37281**	**9437**	**25.31**	**1806**	**443**	**24.5**	**3428**	**1176**	**34.31**
Horse/Faba beans	860	682	79.27	10	5	50.85	38	28	73.46	-	-	-	-	-	-	-	-	-
Field peas	4903	3100	63.24	92	50	54.26	270	187	69.19	771	484	62.7	116	111	96.2	78	74	93.69
White Haricot beans	37378	14632	39.15	2101	786	37.39	3585	1288	35.93	686	517	75.36	67	55	81.7	65	61	93.59
Red Haricot beans	541377	48309	8.92	41397	4899	11.83	51766	7346	14.19	35682	9223	25.85	1609	412	25.6	3237	1163	35.93
Chick peas	106	105	99.23	12	12	99.23	53	53	99.23	-	-	-	-	-	-	-	-	-
Lentiles	2012	1046	52	127	72	56.37	218	149	68.39	-	-	-	-	-	-	-	-	-
Vetch/Grass peas	119	117	98.09	5	5	98.09	4	4	98.09	-	-	-	-	-	-	-	-	-
Soya beans	527	526	99.84	58	58	99.84	11	11	99.84	-	-	-	-	-	-	-	-	-
Fenugreek	626	625	99.84	6	6	99.84	8	8	99.84	586	586	99.99	13	13	100	47	47	99.99
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil seeds	**7586**	**4285**	**56.48**	**3216**	**1381**	**42.96**	**762**	**344**	**45.15**	**41**	**43**	**105**	**19**	**20**	**105**	**20**	**21**	**105**
Nueg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ground nuts	4467	4137	92.62	279	252	90.25	121	114	94.34	-	-	-	-	-	-	-	-	-
Safflower	70	71	101.11	1	1	101.1	11	11	101.1	-	-	-	-	-	-	-	-	-
Sesame	2658	1041	39.19	2926	1358	46.42	626	324	51.82	41	43	105	19	20	105	20	21	105
Rapeseed	392	390	99.62	9	9	99.62	4	4	99.62	-	-	-	-	-	-	-	-	-
Vegetables	**116808**	**21266**	**18.21**	**2626**	**543**	**20.67**	**10584**	**3858**	**36.45**	**14734**	**4881**	**33.13**	**991**	**632**	**63.7**	**1719**	**995**	**57.86**
Lettuce	-	-	-	-	-	-	-	-	-	515	495	95.99	7	7	96	13	12	95.99
Head Cabbage	5482	1755	32.01	208	81	38.66	1057	699	66.09	303	297	97.99	43	42	98.2	38	37	98.85
Ethiopian Cabbage	106349	21233	19.97	2095	507	24.19	8322	3365	40.44	10148	4098	40.38	202	92	45.5	661	355	53.67
Tomatoes	3734	1725	46.19	205	160	78.22	346	215	62.17	1561	884	56.59	415	319	76.8	359	315	87.88
Green peppers	5297	2416	45.62	107	66	61.71	840	474	56.5	2021	1876	92.79	309	306	99	621	618	99.49
Red peppers	140	137	98.05	1	1	98.05	7	7	98.05	523	388	74.15	15	12	78.2	27	25	91.86
Swiss chard	528	438	82.94	9	9	94.96	12	9	78.07	-	-	-	-	-	-	-	-	-
Root Crops	**876726**	*****S**	**24.63**	**56856**	**12631**	**22.22**	**82780**	**17808**	**21.51**	**93998**	**21276**	**22.63**	**7484**	**2066**	**27.6**	**18345**	**7486**	**40.81**
Beetroot	3254	1253	38.5	72	44	61.29	520	361	69.48	655	507	77.37	30	20	67.3	46	33	71.99
Carrot	9400	6734	71.64	86	58	67.46	221	143	64.71	1805	1412	78.26	19	15	79.7	49	43	87.17
Onion	21554	8775	40.71	1498	755	50.39	1791	809	45.18	18055	5015	27.78	1900	716	37.7	5853	2315	39.54
Potatoes	820929	*****S	26.23	52643	12320	23.4	75153	17443	23.21	69576	19869	28.56	5419	1932	35.7	11509	6065	52.7
Yam	18827	8917	47.36	124	60	48.15	1704	1091	64.03	2036	2031	99.79	16	16	99.8	153	153	99.85
Garlic	18650	8521	45.69	2283	2147	94.02	2630	2243	85.26	1997	1286	64.39	69	60	87.5	435	330	75.73
Taro/'Godere'	3948	1473	37.32	64	32	50.49	391	258	66.02	-	-	-	-	-	-	-	-	-
Sweet potatoes	8098	3516	43.42	87	32	36.94	371	207	55.61	1122	1078	96.12	32	30	96.2	299	288	96.15

Table 25 (Cont'd)

Crop type	UREA + DAP									Indigenous seed								
	Holder			Area (Ha)			Quintal			Holder			Hectare (Ha)			Quintal (Qt)		
	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV
All	**1402284**	*****S**	**26.7**	**126819**	**21289**	**17**	**248817**	**45152**	**18**	**9140073**	**504334**	**5.5**	**1316696**	**50523**	**3.8**	**864646**	**63379**	**7.33**
Cereals	**247382**	**34444**	**13.9**	**45274**	**6222**	**14**	**66248**	**9482**	**14**	**3866513**	**129142**	**3.3**	**780774**	**36473**	**4.7**	**701786**	**55933**	**7.97**
Teff	15715	4011	25.5	6476	2033	31	6550	1799	27	349247	57671	17	88479	12719	14	47292	10731	22.7
Barley	53242	14288	26.8	14518	4068	28	14167	3835	27	838616	57046	6.8	173717	15147	8.7	351858	44103	12.5
Wheat	5579	2291	41.1	2775	1444	52	3741	1930	52	223258	36632	16	61130	11408	19	126714	25077	19.8
Maize	177482	30859	17.4	21319	3661	17	41148	7971	19	2812460	115507	4.1	425471	29379	6.9	161914	11046	6.82
Sorghum	2645	1382	52.3	132	81	61	618	327	53	88019	11851	13	26089	6179	24	4772	922	19.3
Finger millet	-	-	-	-	-	-	-	-	-	4420	1592	36	307	129	42	59	28	48
Oats/ 'Aja'	335	308	91.9	53	48	92	24	22	92	43624	8405	19	5381	1182	22	9053	2040	22.5
Rice	-	-	-	-	-	-	-	-	-	1133	545	48	200	143	71	125	101	80.6
Pulse	**159382**	**33105**	**20.8**	**9885**	**2073**	**21**	**23867**	**4820**	**20**	**3314329**	**118369**	**3.6**	**258379**	**16934**	**6.6**	**120313**	**10285**	**8.55**
Horse/Faba beans	3514	3500	99.6	98	97	100	168	167	100	78870	11254	14	4068	980	24	2992	837	28
Field peas	684	682	99.7	7	7	100	19	19	100	103039	16308	16	15185	3422	23	17435	4347	24.9
White Haricot beans	6057	2788	46	255	140	55	1843	1122	61	405715	43480	11	25674	5177	20	12992	3888	29.9
Red Haricot beans	151105	32277	21.4	9504	2051	22	21774	4629	21	2671591	110381	4.1	168203	10700	6.4	65353	5436	8.32
Chick peas	140	137	98.1	10	10	98	9	9	98	42066	17996	43	4770	2129	45	3765	1750	46.5
Lentiles	-	-	-	-	-	-	-	-	-	57330	16420	29	8605	3246	38	5852	1819	31.1
Vetch/Grass peas	-	-	-	-	-	-	-	-	-	23507	12354	53	4769	3434	72	4556	3843	84.4
Soya beans	-	-	-	-	-	-	-	-	-	1734	881	51	88	62	70	15	11	74.5
Fenugreek	705	597	84.7	11	10	89	54	48	88	14281	3624	25	1010	390	39	357	115	32.3
Mung bean/"Masho"	-	-	-	-	-	-	-	-	-	78951	21947	28	26003	9069	35	6996	2344	33.5
Gibto	-	-	-	-	-	-	-	-	-	25	23	90	3	3	90	1	1	90.3
Oil seeds	**3216**	**2821**	**87.7**	**135**	**105**	**77**	**806**	**632**	**78**	**115733**	**30373**	**26**	**28373**	**6667**	**24**	**5127**	**1247**	**24.3**
Nueg	-	-	-	-	-	-	-	-	-	1046	968	93	7	6	75	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	2790	1715	61	92	47	51	45	35	77
Ground nuts	-	-	-	-	-	-	-	-	-	17849	8057	45	3115	1894	61	970	495	51
Safflower	94	93	99.5	3	3	100	94	93	100	2482	835	34	64	33	51	-	-	101
Sesame	289	203	70.3	106	101	96	88	82	94	57984	12621	22	24668	6045	25	4112	1119	27.2
Rapeseed	2833	2813	99.3	27	27	99	624	620	99	36149	26428	73	426	296	70	-	-	88.8
Vegetables	**100394**	**40448**	**40.3**	**5750**	**3522**	**61**	**33986**	**20152**	**59**	**2452155**	**284125**	**12**	**36652**	**4621**	**13**	**144**	**41**	**28.4**
Lettuce	-	-	-	-	-	-	-	-	-	3194	1414	44	23	14	60	-	-	-
Head Cabbage	32740	25160	76.9	2358	2091	89	12700	10851	85	55854	9511	17	1038	326	31	-	-	-
Ethiopian Cabbage	52252	20857	39.9	1332	684	51	7126	3037	43	2296835	280769	12	31513	4443	14	140	41	28.9
Tomatoes	29551	25049	84.8	1658	1371	83	9020	8301	92	70360	20888	30	1559	364	23	-	-	89.1
Green peppers	12403	11267	90.8	299	262	88	2595	2480	96	128739	44360	34	2044	915	45	-	-	-
Red peppers	1642	867	52.8	79	56	71	969	553	57	22076	6480	29	416	133	32	-	-	-
Swiss chard	3822	2908	76.1	23	16	68	1576	1439	91	10977	4808	44	60	30	51	3	3	98.7
Root Crops	**1105121**	*****S**	**33.8**	**65775**	**19936**	**30**	**123910**	**33858**	**27**	**4047274**	**496719**	**12**	**212518**	**27532**	**13**	**37276**	**26621**	**71.4**
Beetroot	3333	1359	40.8	89	52	59	243	118	49	42876	8958	21	506	186	37	3	3	86
Carrot	2273	1039	45.7	43	27	63	47	28	58	13624	3520	26	105	37	36	-	-	-
Onion	65814	24376	37	11226	6244	56	38008	19800	52	261185	40068	15	19563	6901	35	412	379	92
Potatoes	1011830	*****S	36.8	53131	18893	36	78548	26270	33	3384928	489749	14	175629	26159	15	35274	25086	71.1
Yam	4229	3153	74.6	57	39	68	644	424	66	81310	27309	34	782	281	36	-	-	-
Garlic	24965	15324	61.4	1162	961	83	5873	4002	68	312506	56480	18	7154	3388	47	1582	1556	98.4
Taro/'Godere'	1587	768	48.4	35	21	61	442	253	57	47794	10072	21	624	170	27	1	1	98.7
Sweet potatoes	2479	1529	61.7	32	25	80	105	67	64	253033	29052	11	8154	1137	14	4	2	57.2

Table 25 (Cont'd)

Crop type	Improved Seed									Pesticide					
	Holder			Area (Ha)			Quintal			Holder			Hectare (Ha)		
	Estimate	SE	CV	Estimat	SE	CV	Estimat	SE	CV	Estimat	SE	CV	Estimate	SE	CV
All	522287	76304	14.61	57056	7591	13.31	18994	4204	22.14	726666	292129	40.2	145026	20781	14.33
Cereals	276961	45745	16.52	42417	6167	14.54	14641	2976	20.33	221453	26272	11.86	94066	13720	14.59
Teff	152	152	100.36	24	24	100.4	4	4	100.36	81426	16516	20.28	27645	5878	21.26
Barley	5309	3132	58.99	316	165	52.22	89	55	61.85	93987	17386	18.5	27231	5226	19.19
Wheat	2280	1633	71.65	617	479	77.73	713	570	80.05	60304	12390	20.55	27040	7283	26.94
Maize	269478	45626	16.93	41456	6149	14.83	13836	2921	21.11	38363	8404	21.91	7676	1976	25.74
Sorghum	104	104	100.22	5	5	100.2	1	1	100.22	4108	2009	48.9	933	470	50.32
Finger millet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oats/ 'Aja'	-	-	-	-	-	-	-	-	-	15849	4197	26.48	3540	1075	30.36
Rice	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulse	48355	20923	43.27	1863	509	27.32	1123	451	40.2	39221	12018	30.64	6964	3857	55.38
Horse/Faba beans	-	-	-	-	-	-	-	-	-	226	171	75.69	5	4	85.46
Field peas	315	315	99.93	24	24	99.93	17	17	99.93	3772	2273	60.25	583	301	51.59
White Haricot beans	1390	1008	72.47	10	7	74.81	2	2	79	1740	807	46.38	79	49	62.63
Red Haricot beans	45809	20887	45.6	1801	508	28.18	1070	450	42.03	15893	3633	22.86	1066	421	39.44
Chick peas	841	626	74.45	28	28	99.36	33	33	99.36	1557	1414	90.76	292	287	98.12
Lentiles	-	-	-	-	-	-	-	-	-	4115	3194	77.64	605	462	76.39
Vetch/Grass peas	-	-	-	-	-	-	-	-	-	12899	10176	78.89	3877	3345	86.26
Soya beans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-	-	586	586	99.99	10	10	99.99
Mung bean/"Masho'	-	-	-	-	-	-	-	-	-	2168	1159	53.45	447	212	47.44
Gibto	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil seeds	-	-	-	-	-	-	-	-	-	3935	2989	75.97	1997	1770	88.64
Nueg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-	-	27	18	68.08	11	7	68.64
Safflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	3293	2953	89.68	1974	1770	89.7
Rapeseed	-	-	-	-	-	-	-	-	-	615	463	75.28	13	10	76.38
Vegetables	66170	34701	52.44	4210	3442	81.76	50	40	81.31	55441	28947	52.21	3363	1545	45.94
Lettuce	118	117	99.18	-	-	99.18	-	-	-	313	314	100.4	-	-	100.4
Head Cabbage	38197	26029	68.14	2197	2082	94.76	1	1	96.97	3416	2654	77.7	344	234	68.14
Ethiopian Cabbage	11374	8029	70.59	189	143	76	40	40	99.83	21889	14556	66.5	829	648	78.15
Tomatoes	34677	25015	72.14	1807	1376	76.13	8	5	65.38	28764	24909	86.6	2103	1410	67.03
Green peppers	1404	613	43.64	16	8	46.23	-	-	-	1647	963	58.45	84	65	76.48
Red peppers	40	40	100.35	-	-	100.4	-	-	-	140	137	98.05	2	2	98.05
Swiss chard	265	187	70.73	1	-	92.83	-	-	-	1407	1407	99.96	-	-	99.96
Root Crops	178428	51491	28.86	8566	2652	30.96	3180	2782	87.51	459600	290776	63.27	38635	15071	39.01
Beetroot	11940	4402	36.87	118	47	40.31	3	2	70.48	474	387	81.51	5	3	70.66
Carrot	23345	12915	55.32	172	79	45.91	1	1	99.9	9970	9968	99.98	23	23	99.98
Onion	27475	9991	36.37	1480	607	41.03	-	-	90.61	40831	18943	46.39	10509	6152	58.55
Potatoes	118701	49837	41.99	6780	2589	38.18	3169	2782	87.81	416100	290473	69.81	27933	13738	49.18
Yam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Garlic	849	505	59.52	7	6	81.28	-	-	-	2040	1280	62.77	158	94	59.67
Taro/'Godere'	155	154	99.13	8	8	99.13	6	6	99.13	155	154	99.13	8	8	99.13
Sweet potatoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 25 (Cont'd)

Crop type	Irrigation						Extension Package					
	Holder			Area (Ha)			Holder			Hectare (Ha)		
	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV	Estimate	SE	CV
All	**807875**	**90903**	**11.25**	**148132**	**19751**	**13.33**	**1676278**	**203822**	**12.16**	**304650**	**26206**	**8.6**
Cereals	**469378**	**52908**	**11.27**	**95808**	**11495**	**12**	**746792**	**61429**	**8.23**	**171830**	**15998**	**9.31**
Teff	45652	25382	55.6	9190	5415	58.92	56163	12467	22.2	20005	4884	24.41
Barley	43744	11564	26.44	8977	3325	37.04	156109	26030	16.67	43932	7571	17.23
Wheat	18114	10698	59.06	2330	1311	56.28	59064	13201	22.35	29774	8394	28.19
Maize	367599	44085	11.99	74609	9338	12.52	521083	54623	10.48	74055	8658	11.69
Sorghum	6519	2443	37.48	564	272	48.25	21569	4845	22.46	1671	457	27.34
Finger millet	-	-	-	-	-	-	616	377	61.19	27	18	66.72
Oats/ 'Aja'	4887	3741	76.54	139	91	65.32	14216	5193	36.53	2363	799	33.81
Rice	-	-	-	-	-	-	211	170	80.35	3	2	68.38
Pulse	**96052**	**25357**	**26.4**	**13559**	**8476**	**62.52**	**474364**	**55572**	**11.71**	**48072**	**9891**	**20.58**
Horse/Faba beans	399	386	96.72	-	-	99.68	1845	977	52.96	19	9	49.39
Field peas	626	625	99.84	35	34	99.84	8884	4239	47.71	1195	1015	84.96
White Haricot beans	13146	4798	36.5	481	245	50.94	52265	17526	33.53	3238	1195	36.91
Red Haricot beans	47439	16688	35.18	1692	484	28.61	384614	49301	12.82	31150	5037	16.17
Chick peas	6572	2850	43.36	746	374	50.18	4211	2210	52.47	376	292	77.67
Lentiles	2701	1314	48.63	432	298	68.89	7421	6760	91.1	976	932	95.48
Vetch/Grass peas	2112	1208	57.19	256	152	59.4	10706	10500	98.07	3377	3345	99.05
Soya beans	-	-	-	-	-	-	-	-	-	-	-	-
Fenugreek	3263	1405	43.07	200	103	51.63	423	323	76.18	3	2	70.27
Mung bean/"Masho'	23582	17950	76.12	9717	8462	87.09	16916	14277	84.4	7737	7045	91.05
Gibto	-	-	-	-	-	-	-	-	-	-	-	-
Oil seeds	**26618**	**25308**	**95.08**	**367**	**283**	**76.96**	**19457**	**7838**	**40.28**	**4640**	**1647**	**35.51**
Nueg	-	-	-	-	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-
Ground nuts	102	102	100.22	1	1	100.2	12855	7411	57.65	1519	906	59.62
Safflower	-	-	-	-	-	-	302	178	59.14	5	3	61.09
Sesame	278	145	52.39	61	43	70.32	5713	2485	43.5	3097	1376	44.44
Rapeseed	26238	25307	96.45	306	279	91.33	588	584	99.38	18	18	99.44
Vegetables	**169503**	**52775**	**31.13**	**8237**	**2920**	**35.46**	**136026**	**31641**	**23.26**	**5456**	**2066**	**37.87**
Lettuce	2288	1227	53.62	21	13	62.12	515	495	95.99	7	7	95.99
Head Cabbage	42479	25544	60.13	2569	2092	81.44	24513	16731	68.25	1720	1478	85.96
Ethiopian Cabbage	53100	20636	38.86	1622	990	61.03	99718	26940	27.02	2389	1034	43.28
Tomatoes	67215	26433	39.33	2121	593	27.98	23850	16734	70.16	863	429	49.74
Green peppers	61642	42422	68.82	1503	898	59.74	5728	2440	42.6	311	207	66.47
Red peppers	12623	4598	36.42	349	127	36.29	4681	2629	56.17	140	77	55.04
Swiss chard	8357	4569	54.67	52	29	56.34	5276	4275	81.03	27	17	63.76
Root Crops	**361095**	**61329**	**16.98**	**30161**	**8378**	**27.78**	**905285**	**194567**	**21.49**	**74652**	**15185**	**20.34**
Beetroot	10311	4300	41.71	160	55	34.49	7179	2431	33.86	187	125	66.89
Carrot	7963	2956	37.12	85	45	52.42	15642	9584	61.27	162	80	49.46
Onion	164035	38827	23.67	17797	6902	38.78	85666	24472	28.57	13973	6765	48.41
Potatoes	151890	32722	21.54	6976	1377	19.73	748628	169323	22.62	55297	12321	22.28
Yam	-	-	-	-	-	-	16460	8491	51.58	144	78	53.89
Garlic	62419	24809	39.75	4156	3114	74.93	80304	51016	63.53	4601	3350	72.82
Taro/'Godere'	-	-	-	-	-	-	5709	1650	28.9	103	50	48.35
Sweet potatoes	26119	11586	44.36	988	439	44.43	15838	7990	50.45	186	74	39.69

APPENDIX IV

QUESTIONNAIRE

Form AgSS 2007/8

CENTRAL STATISTICAL AUTHORITY
ETHIOPIAN AGRICULTURAL SAMPLE SURVEY 2014/2015 (2007 E.C)

PART I – IDENTIFICATION PARTICULARS

1	2	3	4	5	6	7	8	9	10	11	12	13	14
REGION	ZONE	WEREDA	PA / REST. AR	EA LOCAL	HH ID	HH HEAD SEX 1=M 2=F	HOLDER ID	HOLDER'S NAME	HOLDER'S AGE	HOLDER'S SEX M=1 F=2	HIGHEST GRADE COMPLETED	HOLDER'S HH SIZE	**FARMING TYPE** CROP=1 LIVEST=2 BOTH=3

PART II – CROP FIELD / OTHER LAND USE

15		16	17					
			PARCEL NO.		FIELD NO.			
			IS THE FIELD PURE STAND =1 MIXED CROP =2 OTHER LAND USE=3					
			CROP/OTHER NAME		CROP NAME		CROP NAME	
SER. NO.		QUESTIONS FOR THE HOLDER	CODE		CODE		CODE	
0	1	Ownership Own = 1 Rented in =2 Other =3						
0	2	Is field under Extension Program? Yes =1 No = 2						
0	3	Is Field Irrigated? Yes =1 No =2						
0	4	If Field Irrigated source of water. River =1 Lake =2 Pond =3 Harvested water =4 other =5						
0	5	Percent share of mixed crops						
0	6	Crop growing methods 1=by line 2=by broadcasting						
0	7	Seed / Seedling Type Improved Seed = 1 indigenous seed = 2						
0	8	*For Cereals, Pulses & Oilseeds only* Quantity of improved seeds used	Kilo	Gram	Kilo	Gram	Kilo	Gram
0	9	*For Cereals, Pulses & Oilseeds only* Price of improved seeds used	Birr	Cents	Birr	Cents	Birr	Cents
1	0	*For Cereals, Pulses & Oilseeds only* Quantity of indigenous seeds used	Kilo	Gram	Kilo	Gram	Kilo	Gram
1	1	Was crop damaged? Yes = 1 No =2						
1	2	If yes in question number 10, Cause of damage → Code →						
1	3	Percent of damaged crop						

1	4	Prevention/precaution measure taken? Yes =1 No =2								
1	5	Type of measure if any? Chemical = 1 Non – chemical = 2 Both = 3								
1	6	Chemical type used if any. Pesticide =1 herbicide =2 Fungicide =3 1&2 = 4 1 & 3 = 5 2 & 3 = 6 All = 7								
1	7	Is Fertilizer Used? Yes =1 No = 2								
1	8	Type of fertilizer used if any? Natural = 1 Chemical = 2 Both = 3								
1	9	If chemical fertilizer used 19.1 Type UREA = 1 DAP = 2 Both = 3								
		19.2 Quantity of chemical fertilizer used				Kilo			Gram	
2	0	If natural fertilizer used, type Manure = 1 Compost = 2 Organic = 3 1 &2 = 4 1&3 = 5 2 & 3 = 6 All = 7 others = 8								
2	1	Quantity of crop produced in standard/local measurement	Name	Code	Quantity	Name	code	Quantity	Name	Code	Quantity

PART 3A: RESULTS OF AREA MEASUREMENTS using GPS

18	19	20	21	22	23	24	25
GPS Accuracy during field measurement	Is the field measured?		yes =1	No =2 →			
	Area of measured field		**Is the field Flat =1 Partialy Sloppy = 2 Sloppy = 3**	**Code**	**If the field covered? None , 1 With plant / permanent crop = 2 With house = 3 Partially covered , 4 Others , 5**	**Code**	**Comments**
	Area in square meters **(Clockwise)**	Area in square meters **(Anti-Clockwise)**					
Field measurement			***Date***		***Month***		

PART 3B : RESULTS OF AREA MEASUREMENTS USING COMPASS-ROPE

18	19	20	21	22	23	24	25	26
Is the field measured?		Yes =1		No = 2		Code →		
Side	1 - 2	2 - 3	3 -	4 -	5 -	6 -	7 -	8 -
Bearing (0)								
Length								
Side	9 -	10 -	11 -	12 -	13 -	14 -	15 -	16 -
Bearing(0)								
Length								
Side	17 -	18 -	19 -	20 -	21 -	22 -	23 -	24 -
Bearing (0)								
Length								
Side	25 -	26 -	27 -	28 -	29 -	30 -	31 -	32 -
Bearing (0)								
Length								
Field Measurement	date	month	**Closure error**		Area in square meters			

	Name	**Signature**	**Date**
Data collector			
Field Supervisor			