

CHAPTER- I

1. INTRODUCTION AND OBJECTIVES OF THE SURVEY

1.1 Introduction

Country's experience showed that farmers' attitude and tendency to adopt and accept new innovations, modern agricultural techniques and technologies, such as use of fertilizers, irrigation, improved seeds and pesticides that help to improve their living standards through attaining enhanced productivity, do have positive impact on the development of the agricultural sector as a whole. In this regard, the extent of adopting modern agricultural practices, such as utilization of fertilizer, irrigation, pesticides and improved seeds ...etc, by the peasant farmers often used as important indicators for estimating the rate and extent of modern technologies use in the country's agriculture, above all the magnitude and level modern/improved farm management practices in the agriculture sector used to be the sole indicator of the transformation rate of the country's existing agriculture to modern agriculture.

This report which is Volume VI of the seven series reports, presents quantitative information about the use of modern agricultural inputs for Belg season crops of 2010/11 (2003 E.C.) of the private peasant holdings for the country and regions as it was obtained from the results of the Belg Season Crop Production Sample Survey conducted in May, 2011 by the Central Statistical Agency (CSA).

1.2 Objectives of the 2010/11 Belg Season Crop Production Sample Survey

The objectives of the 2010/11(2003 E.C.), Belg Season Crop Production Sample Survey is to produce basic quantitative information on cropland area, production and yield, of major Belg season crops, as well as to provide quantitative information on:-

- The extent and use of different farm management practices on Belg season crops such as fertilized crop land area and quantity of fertilizer used by crop and fertilizer type, irrigated cropland area under improved seed, pesticide treated cropland area etc.
- The adequate and timely supply of this information to ultimate users is, therefore, important for use as a primary input in the process of policy formulation, designing developmental agricultural projects and programmes. This report, therefore, presents quantitative information on the above mentioned major variables at country and regional levels.

CHAPTER II

2. SURVEY METHODOLOGY, FIELD ORGANIZATION, METHOD OF DATA COLLECTION AND PROCESSING

2.1 COVERAGE

The 2010/11 (2003 E.C) Annual Agricultural Sample Survey (Belg season) covered the entire rural parts of the country except the non-sedentary population of three zones of Afar & six zones of Somali regions. Accordingly the survey took in to account of all parts of Harari, Dire Dawa, and actually **59** Zones / Special weredas (that are treated as zones) of other regions.

To be covered by the survey, a total of around 2110 Enumeration Areas (EAs) were selected. However, due to various reasons that are beyond control, in 934 EAs the survey could not be successful and hence interrupted. Thus, all in all the survey succeeded to cover 1176 EAs throughout the regions. The Annual Agricultural Sample survey (Belg season) was conducted on the basis of 30 agricultural households selected from each EA.

2.2 SAMPLING FRAME

The list containing EAs of all regions and their respective households obtained from the 1999 E.C cartographic census frame was used as the sampling frame in order to select the primary sampling units (EAs). Consequently, all sample EAs were selected from this frame based on the design proposed for the survey. The second stage sampling units, households, were selected from a fresh list of households that were prepared for each EA at the beginning of the survey.

2.3 SAMPLE DESIGN

In order to select the sample a stratified two-stage cluster sample design was implemented. Enumeration areas (EAs) were taken to be the primary sampling units (PSUs) and the secondary sampling units (SSUs) were agricultural households.

The sample size for the 2010/11 agricultural sample survey was determined by taking into account of 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 non-sampling errors, manageability of the survey in terms of quality and operational control was also considered.

Except Harari, and Dire Dawa, where each region as a whole was taken to be the domain of estimation; each zone of a region / special wereda was adopted as a stratum for which major findings of the survey are reported.

2.3 SELECTION SCHEME

Enumeration areas from each stratum were selected systematically using probability proportional to size sampling technique; size being number of agricultural households. The sizes for EAs were obtained from the 1999 E.C cartographic census frame. From the fresh list of households prepared at the beginning of the survey 30 agricultural households within each sample EA were selected systematically. Estimation procedure of totals, ratios, sampling error and the measurement of precision of estimates (CV) are given in Appendix-I and II respectively.

2.5 Field Organization

The Central Statistical Agency (CSA) branch statistical office heads, field supervisors and enumerators, other supporting staff and drivers were all involved in the field operation activities of the 2010/11 (2003 E.C.) Belg season Crop Production Sample survey. To accomplish the data collection activities, all field enumerators were equipped with the necessary survey equipment (i.e. compass, programmable calculator, measuring tape, sample bags...etc). To assist with the fieldwork and data collection activities all available four-wheel drive vehicles were used for supervision and collection of completed questionnaires.

2.6 Training of Field Staff

At the beginning of the survey year, the field staff-training program was carried out in two stages. The first stage consisted of trainees from the head office, branch statistical office heads, statisticians and some of the field supervisors for one week at CSA's headquarters in Addis Ababa. Those trained in the first stage conducted similar training for field supervisors and enumerators for 20 days in the 25 branch statistical offices, which are distributed all over the country. During the second stage training, the field staff were given detailed classroom instruction 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 enumerators' and supervisors' training also included a field practice to reinforce the procedures discussed in the classroom with regard to field area measurement, use of the programmable calculator and crop-cutting techniques.

2.7 Methods of Data Collection.

Except cropland area of major Belg Season crop, the data of which collected objectively using compasses and measuring tape, the information on production of major Belg Season crops and agricultural practices (uses of fertilizer, pesticide, improved seed and irrigation) were subjectively collected by interviewing the holders of sampled households. Appendix II, illustrates the total number of EAs and households reporting for the 2010/11 (2003 E.C.), Belg crop production by region.

A major characteristic of Ethiopian agriculture is the existence of two well-known crop production seasons referred to as the Meher (or main) and Belg(short rain) Seasons. The generally accepted definition of the Meher season is that of the long rainy season, which normally occurs from June to September. The Belg Season most often refers to small but timely rainy season, which normally occurs from February to May but in limited areas of the country. Generally, the Meher Season rainy period provides ideal growing conditions for the longer maturing crops. Planting and harvest of Meher crops can extend to December or January in some areas. Most of the time holders rely on short maturing crops for planting during the Belg rainy period and harvest of the crops is in June or July.

A point of contention arises with respect to the pure definition of the Belg crop. Belg cropping practices are heterogeneous across different portions 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. It is important not to overlook or miss agricultural practices performed all year round due to use of irrigation or soil moisture from sufficiently dried areas that from time-to-time are swampy or marshy. To help clarify the two-crop season, the following definition has been in use since 1987/88:

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

This report consists of estimates of area, production and yield of major Belg Season crops for the year 2010/11 (2003 E.C.) The data collection period for obtaining the area, production and agricultural practices of the Belg season crops was from 'Sene' 1 -15, 2003 E.C. (i.e. From June 8 to June 22, 2011). Data on area under Belg season crop are collected objectively using

compass and measuring tapes, while data on production of belg season crops were using subjective method based on face-to-face interviewing of the holder by the enumerator. Data on production of belg season crops are calculated from the condition factor data that are collected directly from the sampled holders within household, peasant association chairpersons and development agents. The enumerators were trained to systematically present the questions to the respondents on percentage changes using the local translation and meaning. The enumerators were also trained on how to use comparative associations to represent the concept of percentage changes and fill in the questionnaire.

2.8 Data Processing

a. Editing, Coding and Verification

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

The enumerator completed edited and coded questionnaires sent to the head office were thoroughly verified by trained verifiers on a 100% basis before the questionnaires were sent to the data entry unit. The editing, coding, verification and data entry of all questionnaires was completed in two weeks time.

b. Data Entry, Cleaning and Tabulation

Before starting data entry computer edit specifications were prepared for use on personal computers, utilizing the CSPRO Software for data consistency checking purposes. The data on the coded questionnaires were then entered into the CSPRO software on personal computers. The data was then checked and cleaned using the computer edit specifications prepared earlier for this purpose. Forty six data encoders and eight supervisors were involved in this total process and it took twenty five days to complete the job. Finally, tabulation was done on personal computers to produce results as indicated in the tabulation plan.

2.9 Basic concepts and definitions

For better understanding and ultimate use of the data presented in this report, the definitions and concepts of technical terms and terminologies used for the collection of all types of data of the 2010/11 (2003 E.C.) Belg Seasons Crop Production Sample Survey is presented here below: -

Enumeration Area (EA): An Enumeration Area in rural parts of the Country is a locality that is less than or equal to a farmer's association area and usually it consists of 150-200 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 provision for food or other essentials for living. The persons in the group may pool their incomes and have a common budget to greater or lesser extent. They may be related unrelated persons, or a combination of both.

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

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

Under conditions of traditional agricultural holding the holder may be regarded as the person, who with or without helps, of others, operates land or raises livestock in his own right, i.e. the person who decides on what, when where and how to grow crops or raise livestock and has right to determine the utilization of the products.

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

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

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

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

Meher Season Crops: - are those crops that are harvested during September (Meskerem) to February (Yekatit) are considered as main (Meher) season crops.

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

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

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

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

CHAPTER III

III. SUMMARY OF THE RESULTS OF THE 2010/11 (2003 E.C.) FARM MANAGEMENT PRACTICES OF BELG SEASON SURVEY

In this part of the report, the results of the 2010/11 (2003 E.C.), Belg Season Crop Production Sample Survey on the extent and use of Belg season farm management practices are presented. The following are brief discussions on the major findings of the survey.

According to 2010/11 (2003 E.C.), Belg Season Crop Production Sample Survey results, it was estimated that Belg season major crops covered **1,173,048** hectares of land, where **4,470,153** holders were engaged in the production activity. Of this total area under Belg season crops 697,938 hectares (**59.49%**) was under the use of improved farm management practices in which **3,362,141** (**75.21%**) agricultural holders reported for utilizing different agricultural inputs. Moreover, in 2010/11 (2003 E.C.) it was estimated that a total of 164,843 quintals of commercial fertilizer was utilized for Belg season crop production.

Summary Table A: Total Cropland Area and Number of holders engaged in 2010/11 (2003 E.C.) belg season crop production activities

• Belg crop Area in Hectare	
• Number of Belg Crop Producing Holders	1,173,048 4470153
• Improved Farm Management including practices in Hectare	697,938
• Number of holders reporting the use of farm management practices	3,362,141
• Quantity of commercial fertilizer applied in Quintals	164,843

3.1 Belg Season Cropland Area under Different Farm Management Practices

According to the 2010/11 (2003 E.C.), Belg season Crop Production Sample Survey results, it was estimated that Belg season crops covered about **1,173,048** hectares of land. Of this total, about **588,192** hectares (**50.14%**) was under the use of improved farm management practices. Moreover, of the above mentioned total cropland area under improved farm inputs, about **383,772** hectares (**65.25%**) was under fertilizer (Both Natural and Commercial), **59,823** hectares (**10.17%**) was under irrigation, **100,056** hectares (**17.01%**) was treated with pesticides and **44,541** hectares (**7.57%**) was under improved seeds. The coverage of the above mentioned farm management practices accounted

for **32.72%**, **5.09%**, **8.53%** and 3.78% of the country level total area under Belg season crops, respectively (See Summary Table B).

Summary Table B. Cropland Area Under Improved Farm Management Practices;

For Private Holdings, 2010/11 (2003 E.C.), Belg season

Country Level

Farm Mangement Practices	Cropland AREA		% From Country Total
	IN Hectare	%	
IRRIGATION	59823	10.17	5.09
IMPROVED SEEDS	44541	7.57	3.80
FERTILIZER	383772	65.25	32.72
PESTICIDES	100056	17.01	8.53
TOTAL	587980	100.00	50.14

In Summary Table C, below the 2010/11 (2003 E.C.), Belg Season estimates of total cropland area under different farm management practices is presented. As it is indicated in the summary Table, the highest proportion of cropland area under different farm management practices was reported to be covered by Cereals, which accounted for **490,826** hectares (52.50% from the total cereals covered area reported at country level), followed by pulses with 91114 hectares under improved farm management practices, taking up 43.09% of the total country level pulses covered area.

Summary Table C. Cropland Area Under Improved Farm Management Practices;
For Private Holdings, 2009/10 (2002 E.C.), Belg season

Country Level

Crop Categoriey	Cropland AREA			
	Total		Under IMP. Farm Mgmnt Prac.	
	In Hectare	%	In Hectare	% From Total
CEREALS	934,946	79.70	490,826	41.84
PULSES	211,462	18.03	911,462	7.77
OIL CEOPS	26,640	2.27	2,672	0.23
GRAINS	1,173,048	100.00	584,612	49.84

3.2 Fertilizer Applied Cropland Area and Fertilizer Type used

The results of the survey indicate that belg season cropland area under both natural and commercial fertilizers were estimated to be **383,772** hectares, covering 32.72% of the total area

under Belg seasons crops of the private holdings. Of the total fertilized area **207,977** hectares (54.19% from the total fertilizer applied bel cropland area and 17.73% from total country level Belg Cropland area) was reported to be under natural fertilizers. The coverage of commercial fertilizers was estimated to be **175,795** hectares (**45.81 %** from the total fertilizer applied aea and **14.99%** from the country total crop land areat), the share of DAP, UREA and the mixture of the two [i.e. DAP + UREA] called as commercial fertiltzers altogether constitute **38.20%**, **01.79%** and **5.82%** of the total fertijzer applied crop land area and **12.50%**, **0.59%** and **1.90%** of the total country level reported Belg season cropland area in that order (For details see Summary Table D.)

**Summary Table D:- Fertilizer Applied Cropland Area ;For Private Holdings,
2010/11 (2003 E.C.), Belg season**

Country Level			
FertilizerType	Fertilizer Applied AREA		% From Country Total
	In Hectare	%	B.Crop Area
	Natural	207,977	54.19
Commercial	175,795	45.81	14.99
DAP	146,584	38.20	12.50
UREA	6,876	1.79	0.59
DAP + UREA	22,335	5.82	1.90
Total	383,772	100.00	32.72

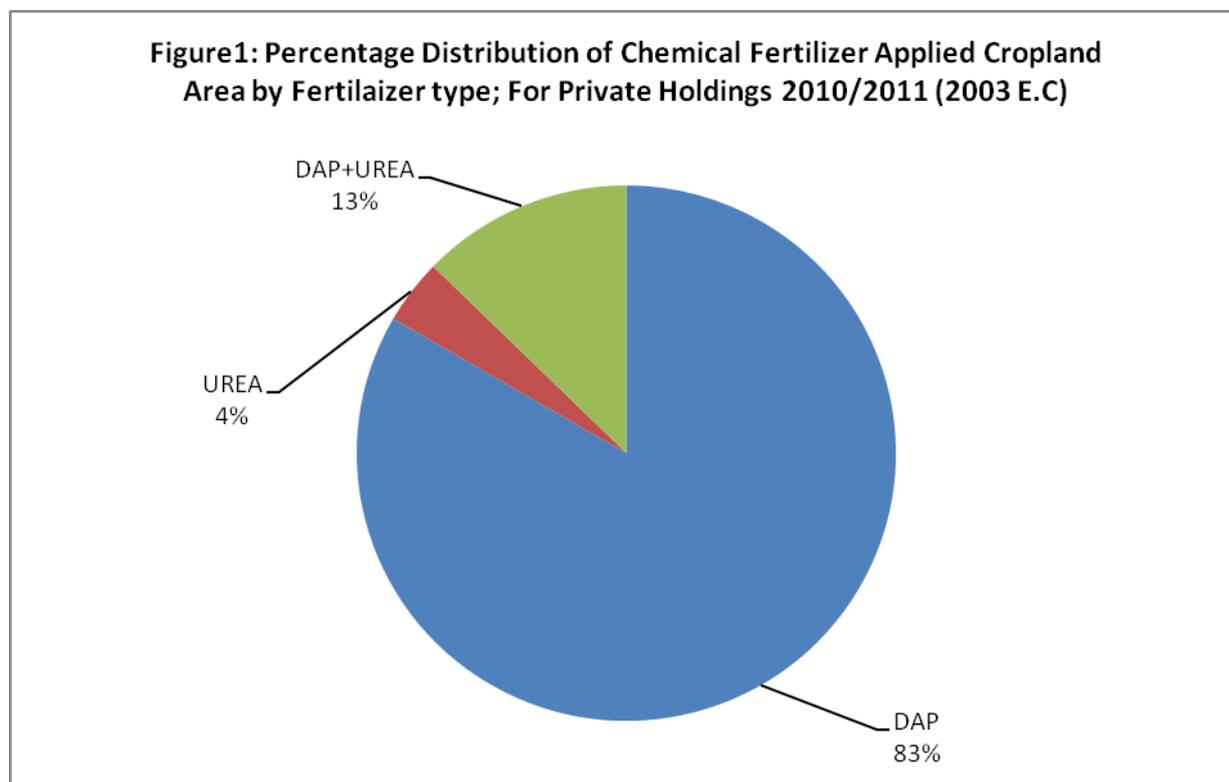
3.3.1 Use of Natural Fertilizers

In general, the application of natural fertilizers for Belg season crops in 2010/11 (2003 E.C.), varies from crop to crop. Of the total area under natural fertilizer, the highest proportion was reported for maize crop, which was estimated at **109,263** hectares (**52.54%**). The fertilized area (natural fertilizer) under haricot beans was the second with an estimated area of **37,388** hectares (**17.98%**), while area under barley stood third i.e. **23,783** hectares, accounting **11.45%** of the total country level natural fertilizer applied Belg season cropland area (see Table 2.1).

3.3.2 Use of Commercial Fertilizers

Out of the total cropland area under commercial fertilizers in 2010/11 (2003 E.C.), Belg season, i.e, **175,795** hectare (**14.99%**) of the total Belg season crop area), the area under DAP

was the highest which accounted for **146,584** hectare (**83.38%**), while the the second and third were the mix of the two fertilizers (DAP+UREA) and UREA covering **22,335** hectare (**12.71%**) and **6,876** hectare (**3.91 %**) of the total commercial fertilizer applied area, respectively (see Fig 1.)



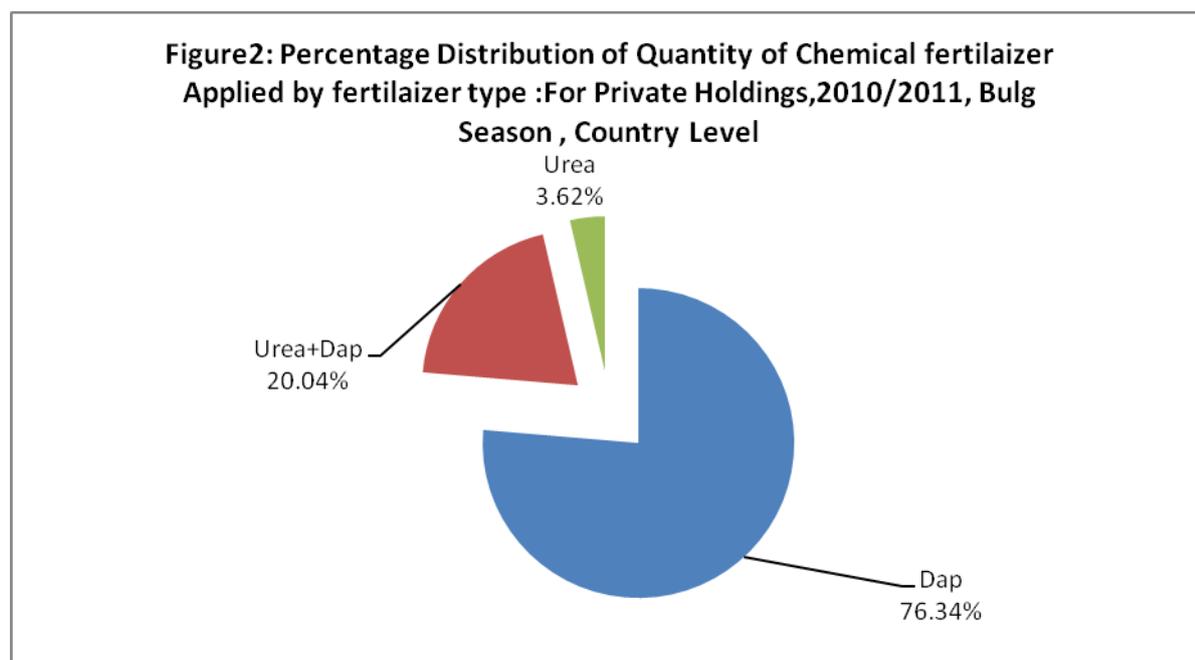
Similarly, the application of commercial fertilizers varied from crop to crop. Of the total area under commercial fertilizers, the highest area was reported for Maize at **61,192** hectares (**37.12%**). The second highest area reported under commercial fertilizers was for Haricotbean, i.e., **37,372** hectares (**22.67%**), followed by barley with **30,805** hectares, i.e. about 18.69% of the total haricotbean covered area, was under commercial fertilizer, during the 2010/11 Belg season harvest.

The regional distribution of both natural and commercial fertilizers application varied from region to region. For instance, of the total area under both (Natural + Commercial) fertilizers, the highest was reported for Oromia Region, which accounted for **207,095** hectares (**53.96%**) of the total country level both Natural + Commercial fertilizer applied cropland area), S.N.N.P and Amhara Regions were the second and third in contributing the highest both (Natural and

Commercial) fertilizers applied cropland area which were estimated to be **156,346** hectares (**40.74%**) and **34,949** hectares (**9.10%**), respectively.

3.4 Type and Quantity of Commercial Fertilizer Applied

In 2010/11 (2003 E.C.) the total quantity of commercial fertilizer used for Belg season crop production was estimated at **164,843** quintals. Of this total, the share of DAP was the highest accounting for **76.35%** (**125,853** quintals). The mixture of the two types of fertilizers (DAP+UREA) was the second highest accounting for **20.04%** (**33,028** quintals). The last was the share of the Urea, which accounted for **3.62%** (**5,962** quintals) (See Fig 2).



3.5 Number of Belg Crop producing Holders Reporting use of Improved Farm Management Practices by Age

To easily identify the age category of holders who used to earn the economic benefit generated from adopting/practicing the use of modern farm management practices on their holdings, Belg crop producing holders' ages have been categorized into nine groups. These are:

The group categories by age

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

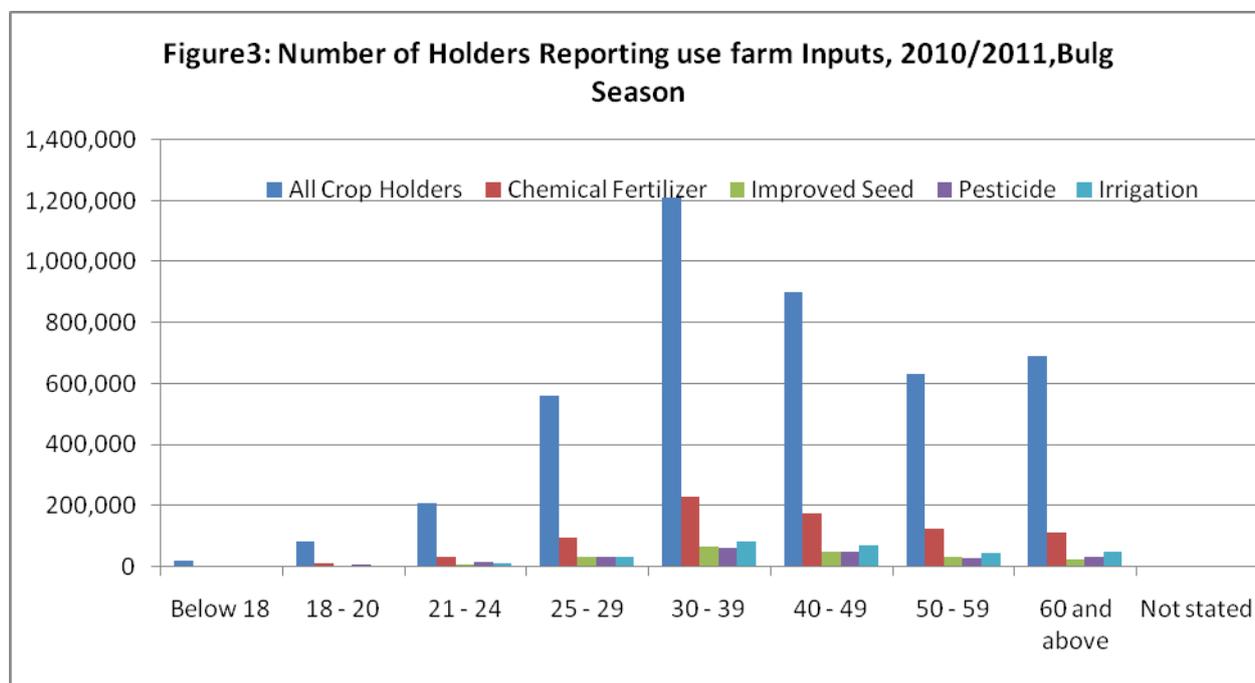
Based on the survey results, a total of **4,298,094** holders were engaged in the over all Belg season agricultural activities in 2010/11 (2003 E.C.) Belg season. As mentioned above, these holders are categorized in to nine age groups based on the age of the holder. Accordingly, the highest number **1,210,769** (28.17%) of holders was estimated to fall in the age group 30-39. The second **899,552** (20.93%) and third **688,945** (16.03%) highest number of holders fall in the age groups 40-49 and 60 and above, respectively. Moreover, it was estimated that a total of

Summery table E: Number and Percentage distribution of Bulg Crop producing Holders reporting use of Farm inputs by age group; for private holdings 2010/2011 (2003 E.C) bulg season

Country Level

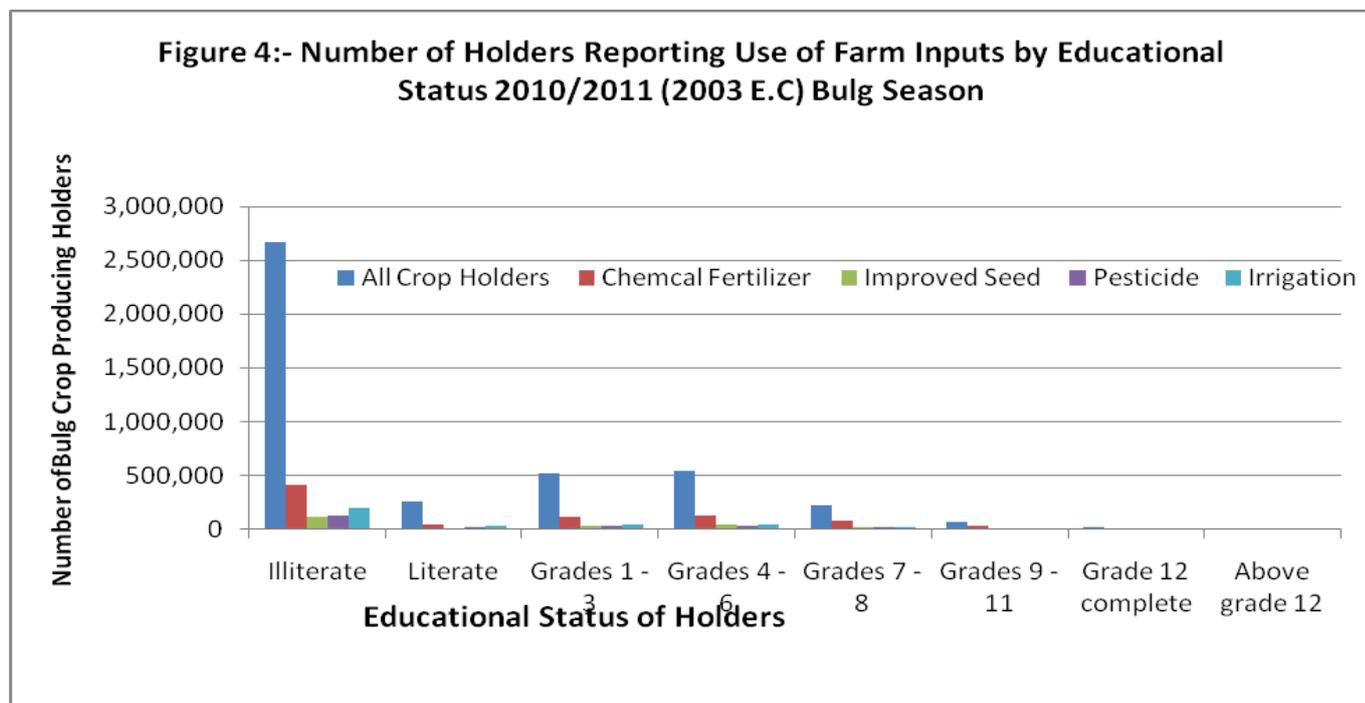
Age group	All		Chemical		Improved Seed		Pesticide		Irrigation	
	Crop Holders	%	Fertilizer	%	Seed	%	Pesticide	%	Irrigation	%
<i>Below 18</i>	17,809	0.14	1,788	0.23	*		799	0.38	2,886	0.96
<i>18 - 20</i>	81,861	1.90	10,353	1.33	3,144	1.46	4,212	2.02	4,533	1.50
<i>21 - 24</i>	207,920	4.84	29,720	3.82	7,832	3.65	12,366	5.94	12,974	4.29
<i>25 - 29</i>	558,273	12.99	95,320	12.27	30,498	14.20	30,403	14.59	33,053	10.94
<i>30 - 39</i>	1,210,769	28.17	229,889	29.58	67,491	31.42	58,008	27.84	82,095	27.17
<i>40 - 49</i>	899,552	20.93	174,900	22.50	47,931	22.32	48,124	23.10	70,220	23.24
<i>50 - 59</i>	630,410	14.67	122,450	15.76	31,477	14.66	26,069	12.51	45,346	15.01
<i>60 and above</i>	688,945	16.03	111,282	14.32	25,858	12.04	28,367	13.62	51,047	16.89
<i>Not stated</i>	*		*		-		-		-	
Total	4,298,094	100	777,166	100.00	214,779	100	208,349	100.00	302,153	100
%	100		18.08		5.00		4.85		7.03	

777,166 ; 214,779; 208,349 and 302,153 Belg crop-producing holders (i.e. about 18.08%; 5%; 4.85% and 7.03% of the country total Belg crop producing holders) reported the use of commercial fertilizer, pesticides, improved seed, and irrigation practices, respectively, to obtain higher cop yield (See summary Table E).



3.6 Number of Belg Crop producing Holders reporting use of Improved Farm Management Practices, by Holders' Educational Status

Holders Educational Status plays 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 2010/11 Belg Season Crop Production activities based on their educational status. According to the results of the 2010/11 Belg Season Crop Production Sample Survey, out of the total number i.e. **4,298,094** holders, out of which the highest number of holders who used chemical fertilizers, improved seed, pesticides and irrigation i.e. about **126,801; 38,951** and **25,249** holders wre fount to have Grade 4 – 6 educational status, however,with regardcto irrigation practice, the highes number i.e. **33,197** holders' were found to Grade 1 – 3 educational status. In general, it was also estimated that number of illiterate holders were recorded more in all application of agricultural inputs as compared to number of literate holders.



3.7 Number of Holders Reporting Damaged Cropland Area 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 2010/11 Belg Season Crop Production harvest were estimated to be about **1,480,209** and the damaged cropland area was estimated to be **145,848** hectares. As indicated in Table 4, the highest cropland area was reported for cereals, that is **95,608** hectares, followed by pulses, which is **32,240** hectares and then Oil crops with **3,722** hectares of damaged cropland area. With regard to the causes of crop damage, it is reported that **90,406** hectares was damaged due to Halistone the second highest crop damage which is estimated at **26,182** hectares was damaged by Weeds. For details, see Table 4 and Fig 5.

Figure 5:- Damaged Cropland Area by Causes of Damage and Crop Category; 2010/2011 (2003 E.C), Bulg Season.

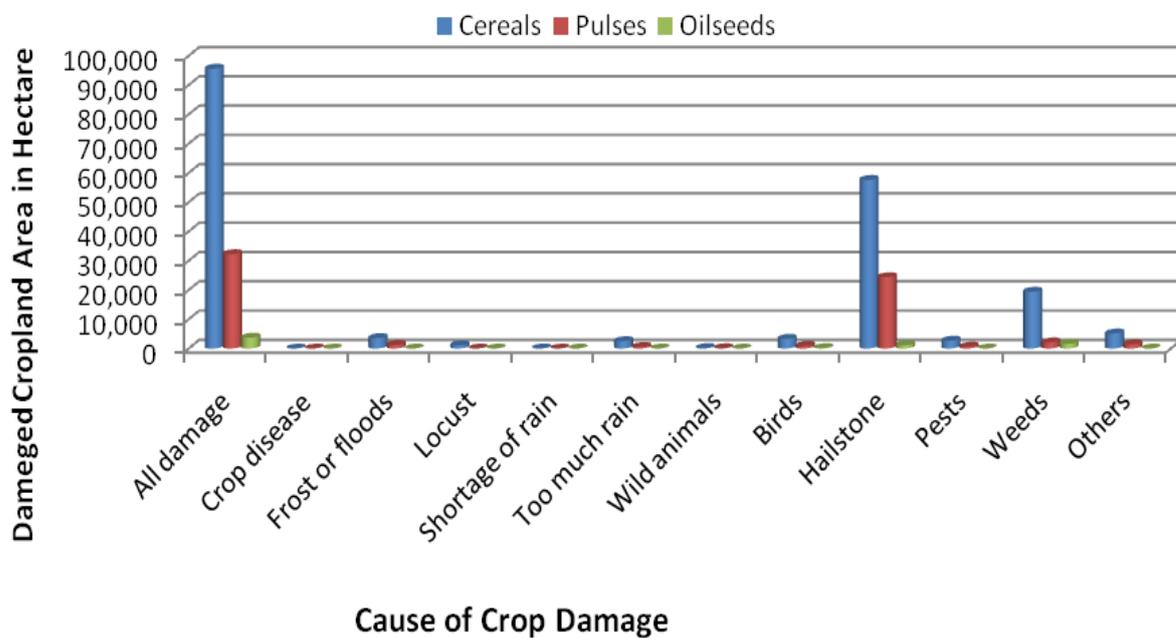


Table 1: Number of Holders, Inputs Applied Area and Quantity of Inputs used

Country Level								
Crop type	All crop	All Fertilizer		Natural		DAP		
	land Area	Hectare	Quintas	Holder	Hectare	Holder	Hectare	Quintal
Grain Crops	1,173,048	383,773	164,844	1,839,552	207,977	652,639	146,584	125,853
Cereals	934,946	299,909	116,712	1,694,965	166,302	520,973	111,462	87,896
<i>Teff</i>	77,786	19,203	4,444	56,711	10,424	27,477	6,678	3,469
<i>Barley</i>	162,274	54,828	20,524	174,843	23,783	111,230	29,177	18,321
<i>Wheat</i>	71,787	31,848	22,249	45,381	5,641	47,287	24,680	20,435
<i>Maize</i>	550,759	173,187	67,267	1,484,872	109,263	379,627	47,577	43,893
<i>Sorghum</i>	57,413	17,077	869	83,763	15,975	7,874	829	574
<i>Finger millet</i>	1,380	362	*	7,286	362	-	-	-
<i>Oats/ 'Aja'</i>	12,978	3,392	1,205	10,018	841	11,661	2,520	1,204
<i>Rice</i>	*	*	-	*	*	-	-	-
Pulse	211,462	80,997	47,305	953,807	40,328	381,539	33,799	37,336
<i>Horse/Faba beans</i>	3,993	663	187	22,357	490	6,187	171	168
<i>Field peas</i>	7,144	1,353	*	15,022	1,045	3,237	308	*
<i>Haricot beans</i>	182,453	77,365	46,778	914,013	37,388	372,536	33,139	36,866
<i>Chick peas</i>	6,235	696	*	6,402	647	*	*	*
<i>Lentiles</i>	7,031	766	*	9,219	610	*	*	*
<i>Vetch/Grass peas</i>	3,412	*	-	*	*	-	-	-
<i>Soya beans</i>	*	*	*	*	*	*	*	*
<i>Fenugreek</i>	1,126	49	*	3,626	47	-	-	-
<i>Gibto</i>	*	-	-	-	-	-	-	-
Oile crops	26,640	2,866	827	11,878	1,348	4,918	1,324	622
<i>Nueg</i>	*	*	*	*	*	-	-	-
<i>Linseed</i>	366	*	*	*	*	*	*	*
<i>Ground nuts</i>	*	*	*	*	*	*	*	*
<i>Safflower</i>	*	*	*	*	*	-	-	-
<i>Sesame</i>	23,139	2,288	*	2,949	915	*	1,216	*
<i>Rapeseed</i>	635	*	*	*	*			*