

FRUIT AND VEGETABLE PRODUCTION
SURVEY ON DIRECT SALES

MALTA

TAPAS PROJECT

FINAL REPORT

CONTENTS

1	Introduction.....	5
1.1	Approach	5
1.2	History on fruit and vegetables data compilation and estimation	5
1.3	Estimations	6
1.4	Aerial Photography	6
1.5	Scope of survey	7
2	Origin of data for the methodological study	8
2.1	The agricultural register	8
2.2	Updating the agricultural register	9
2.3	Sample design and methodology.....	9
2.4	Enumeration and Interviewing	15
2.5	Unit non-response	16
3	Results and Comparisons.....	17
3.1	Findings on structure of the holdings	17
4	Conclusion.....	24

Annex 1: List of coefficients

Annex 2: Questionnaire

TABLES AND GRAPHS

TABLES

Table 1:	Population distribution of agricultural holdings by region, type of land and land groups.....	10
Table 2:	Initial sample distribution of agricultural holdings by region, type of land and region	12
Table 3:	Initial sample weights of agricultural holdings by Region, type of land and land groups	12
Table 4:	Final sample distribution of agricultural holdings by region, type of land and land groups.....	14
Table 5:	Final sample weights of agricultural holdings by region, type of land and land groups.....	14
Table 6:	Response rate of agricultural holdings by region, type of land and land groups	15
Table 7:	Area (ha) and estimated total production (t) by type of crop	19
Table 8:	Lower and upper limits of estimated total crop production (t) at 68% confidence	20
Table 9:	Distribution of crop produce (t) by administrative sources.....	22

Table 10: Comparison between estimated total crop production (t) and crop produce (t) from administrative sources23

GRAPHS

Graph 1 : Percentage distribution of agricultural area (ha) by type of crop.....17

Graph 2 : Percentage distribution of estimated crop production (t) by type of crop18

Graph 3: Percentage distribution of estimated crop production (t) by destination of produce.....21

1 Introduction

Way back in July 2003, during the ASA Committee Meeting, Eurostat informed Acceding Countries that it was possible to finance actions to improve the quality of the fruit and vegetable statistics. Malta took up the offer and an official request, together with an action plan, was sent to Eurostat on the 29th July 2003.

Several projects, including Malta's application, were approved by Doc. ESTAT/CPSA/429 during the Committee Meeting of the 6th July, 2004. The formal approval of the work program was officially granted on the 5th November, 2004.

1.1 Approach

The main objective of statistics is to provide timely, accurate and reliable information for planning and policy making purposes within a local and global context.

The aim of this TAPAS action was to compile baseline data that would lay solid foundations for future fruit and vegetable statistics estimations. A methodological description on the compilation of fruit and vegetable estimates will be explained. Also, the methodology used in the current compilation using a scientific and statistical approach will be dealt with. Finally, within this report, the NSO will be analyzing the results of the study carried out and will make comparisons with previous compilations in this area.

1.2 History on fruit and vegetable data compilation and estimation

It has been the practice for many years that farmers deposit a large part of their agricultural produce for sale, at the four administrative vegetable markets. Malta does not have any cold storage facilities for fruit and

vegetables, hence, all products are sold fresh. The products are sold by public auction, through the middlemen, to licensed hawkers. The crops which are not sold through the markets are the following:-

- Wheat, barley, clover, vetches (which are used as fodder)
- Tomatoes which are meant for processing
- Grapes which are sold to vintners
- Potato for export

The data for these crops is compiled directly by the National Statistics Office, from the various administrative sources.

The four markets provide the National Statistics Office with a list of all transactions which are carried out. The list, which is submitted on a monthly basis, contains personal details and the quantities and values of each product.

1.3 Estimations

Prior to this project, the estimation for total fruit and vegetables production was based on the available administrative sources. A provision for direct sales was estimated with the help of experts from the Ministry of Agriculture. A coefficient for direct sales was established on each product in consultation with the Ministry of Agriculture. Various benchmarking exercises were done with the farmers during census of Agriculture.

1.4 Aerial photography

Benchmarking exercises to establish a solid dataset, were also done with the help of newer technologies. In April 2000, the National Statistics Office had embarked on a very ambitious project, namely conducting a comprehensive geographical survey of the national

agriculture-related statistical data. The survey was based on ground truthing, aerial photography and GIS-based estimation methods. A list of variables was defined and these included area under horticultural products, fodder, permanent crops and area under greenhouses.

These results established a dataset of the area under the different crops at a particular period. The variables which gave conclusive results were permanent crops and structures together with fodder, as this is harvested during the actual photography. Since a census of agriculture had not been carried out for a period of seventeen years, it was imperative to establish the area under fodder as no records were available at the time. Also certain characteristics of the parcels such as 'land area under irrigation' were established. However, production figures could not be dealt with and separate projects were needed to establish production figures.

1.5 Scope of the survey

To date, the total production of fruit and vegetables and other agricultural crops are estimated by applying a co-efficient to the quantities of fruit and vegetables that pass through the four administrative markets in Malta and Gozo. To do away with expert advice the Agriculture and Fisheries Unit decided to embark on a project using scientific methods in order to provide solid foundations for present and future production estimates. Whilst the survey will be used to estimate total crop production in 2004, the figures will also be used to provide more reliable and accurate statistics on crop output within the framework of the Economic Accounts for Agriculture (Rev 1.1).

2 Origin of data for the methodological study

2.1 The agricultural register

The then Central Office of Statistics used to carry out an annual Census of Agriculture from the year 1956 until the year 1983. There was a long break and in 1999, the Agriculture and Fisheries unit started setting up an agricultural register. A postal questionnaire was sent to 14,000 holdings whose records were kept at the Statistics Office. The postal questionnaire included the basic information and characteristics of the holding such as type of land, locality of the parcels and area in hectares, personal details of the farmer and family workers. During the year 2001, a Census of Agriculture was carried out with a census date being 30th September 2001. All information was collected over a three week period which started in the last week of October and ran until mid-November. The Maltese agricultural register is a comprehensive register that includes all holdings engaged in any agricultural activity, whether commercial or subsistence farming. No thresholds were applied and since all agricultural holdings were obliged to participate, a response rate of 95 per cent was achieved. As ninety per cent of the register is made up of part time holders, thresholds could not be applied, as this would eliminate the bulk of the agricultural land. Including part time farmers within the register will exhaustively cover all production, whether crop production or livestock breeding.

The details covered by the census included:

- Personal details of the holder
- Land type (irrigated, dry, garigue)
- Land use (permanent crops, arable crops) by type of crop
- Livestock
- Machinery
- Labour force

Basically, the census was to serve as the platform of future surveys within the various domains in the agricultural sector.

2.2 Updating the agricultural register

Updates on the register are carried out on a monthly basis. The research institute provides a list of updates within the horticulture sector. Updates include transfer of land, deletions, new registrations and any corrections of personal details. Similarly the Department of Veterinary Services provides updates within the livestock sector. The new holdings are immediately interviewed by an AFU official in order to collect missing data. On the other hand, holdings that no longer exist are struck from the register.

2.3 Sample design and methodology

In order to have the best possible representative sample, the agricultural register was updated prior to the sampling design.

At this point in time the total amount of agricultural holdings amounted to 10,988 holdings, of which 162 agricultural holdings were livestock holdings without any agricultural land. These 162 holdings were not considered for this survey. Thus, the target population amounted to 10,826 agricultural holdings.

Stratification of agricultural holdings was split according to:-

- Administrative areas - Gozo and Comino, Northern, Southern and Western
- Type of land - Irrigation/Dry
- Median Land groups

The total list of agricultural holdings were split into 24 strata as shown in the Table 1:

Table 1. Population distribution of agricultural holdings by region, type of land and land groups

Region	No irrigation				Irrigation			
	0 - median	median - P75	P75 +	Total	0 - median	median - P75	P75 +	Total
Gozo and Comino	1,299	490	298	2,087	101	83	104	288
Northern	573	318	295	1,186	232	210	415	857
Southern	1,826	788	540	3,154	188	144	217	549
Western	1,032	501	493	2,026	170	167	342	679
Total	4,730	2,097	1,626	8,453	691	604	1,078	2,373

When the sample was extracted, the median area was established at 0.59 ha. The land groups imply that in stratum 1, there were 1,299 holdings that have no irrigation facilities coming from the region of Gozo and Comino. These have an agricultural area greater than zero but less than 0.59 ha.

In order to reduce the number of strata, the southern region included holdings from the northern harbour, southern harbour and south eastern districts. The northern harbour and southern harbour districts contain the least amount of agricultural area and are located closely to the south eastern district.

It was decided together with the Research and Methodology Unit at the National Statistics Office, that the total number of agricultural holdings which would be surveyed was to be 1,500 units, representing 14 per cent of the total population. These were split between 700 holdings which had no means of irrigation and the remaining 800 holdings would be allocated to holdings that have some source of irrigation. The sample design took into consideration the fact that 8,453 agricultural holdings (78.1 per cent) do not have any source of irrigation and the remaining

agricultural holdings (21.9 per cent) do have. As Malta has a very dry climate, the bulk of horticultural production is grown on holdings which have a supply of water. The holdings were then split proportionally among the regions within the type of land. The holdings were equally allocated among the land groups.

For the allocation of holdings to be sampled among the strata, the following formula was used:-

$$nl_{ri} = \frac{1}{3} \cdot \frac{N_{ri}}{N_i} \cdot n_i$$

Where:

N is the total number of holdings in the population

n is the total number of holdings in the sample

i is the type of land

0 = non-irrigated

1 = irrigated

r is the region

0 = Gozo and Comino

1 = Northern Region

2 = Western Region

3 = Southern Region

l is the land group

1 = 0 – median

2 = median – P75

3 = P75+

The formula is multiplied by a coefficient of 1/3 due to the fact that equal allocation between land groups was applied.

Table 2. Initial sample distribution of holdings by region, type of land and land groups

Region	No irrigation				Irrigation			
	0 – median	median – P75	P75 +	Total	0 – median	median – P75	P75 +	Total
Gozo and Comino	58	58	58	174	32	32	32	96
Northern	33	33	33	99	96	96	96	288
Southern	87	87	87	261	62	62	62	186
Western	56	56	56	168	76	76	76	228
Total	234	234	234	702	266	266	266	798

The weight of each holding selected from each stratum was equal to:

$$wt_h = \frac{N_h}{n_h}$$

Where:

N_h is the number of holdings in the population stratum h

n_h is the number of holdings in the sample stratum h

Wt_h is the weight of each holding in sample in stratum h

Table 3. Initial sample weights of holdings by region, type of land and land groups

Region	No irrigation			Irrigation		
	0 - median	median - P75	P75 +	0 - median	median - P75	P75 +
Gozo and Comino	22.397	8.448	5.138	3.156	2.594	3.250
Northern	17.364	9.636	8.939	2.417	2.188	4.323
Southern	20.989	9.057	6.207	3.032	2.323	3.500
Western	18.429	8.946	8.804	2.237	2.197	4.500

In order to minimize enumeration errors five (5) qualified staff were involved in the interviewing stage. Interviewing was carried out during a twelve week period extending from March to May 2005 and the information collected referred to harvested crop production for the calendar year 2004. Crops sown at the end of 2004 to be harvested in 2005 were not taken into account.

The households in the sample were informed individually by mail explaining the scope of the survey and the information it was about to be collected. It was also explained that reliable and accurate data was of utmost importance for planning purposes. Each farmer was asked to prepare areas and production figures for the year 2004. A list, by product, of all transactions carried out at the official markets was compiled so as to countercheck the farmers' declarations. This served as a benchmarking exercise. As most of the agricultural produce is transported in standard boxes, the enumerators asked the farmer the number of boxes harvested of each crop. The farmer was more familiar to the number of boxes rather than on actual production in kilograms. The fruit and vegetable market gave detailed information about the packing and the standard weight of each crop. During interviewing, the weights of the boxes were confirmed as being correct.

From a sample of 1,500 holdings there was a response of 1,162 holdings or 77 per cent response.

Table 4. Final sample distribution of agricultural holdings by region, type of land and land groups

Region	No irrigation				Irrigation			
	0 - median	median - P75	P75 +	Total	0 - median	median - P75	P75 +	Total
Gozo and Comino	51	37	37	125	21	22	26	69
Northern	29	23	22	74	64	69	90	223
Southern	80	66	59	205	45	49	59	153
Western	51	34	51	136	50	61	66	177
Total	211	160	169	540	180	201	241	622

In order to tackle non response, it was decided to re-weight rather than to impute data from the census. This decision was taken as the census data was four years old and may be considered outdated. The final weighting scheme can be seen from Table 5:

Table 5. Final sample weights of agricultural holdings by region, type of land and land groups

Region	No irrigation			Irrigation		
	0 - median	Median - P75	P75 +	0 - median	median - P75	P75 +
Gozo and Comino	25.471	13.243	8.054	4.810	3.773	4.000
Northern	19.759	13.826	13.409	3.625	3.044	4.611
Southern	22.825	11.939	9.153	4.178	2.939	3.678
Western	20.235	14.735	9.667	3.400	2.738	5.182

Table 6 reflects the actual response rates per stratum. The element of non response was due to a number of factors. In some cases the agricultural holding could not be contacted and in other cases the holding refused to co-operate.

Table 6. Response rate of agricultural holdings by region, type of land and land groups

Region	No irrigation				Irrigation			
	0 – median	Median – P75	P75 +	Total	0 – median	median – P75	P75 +	Total
Gozo and Comino	87.9%	63.8%	63.8%	72.3%	65.6%	68.8%	81.3%	71.1%
Northern	87.9%	69.7%	66.7%	75.5%	66.7%	71.9%	93.8%	77.2%
Southern	92.0%	75.9%	67.8%	78.5%	72.6%	79.0%	95.2%	82.7%
Western	91.1%	60.7%	91.1%	81.0%	65.8%	80.3%	86.8%	77.3%
Total	90.2%	68.4%	72.2%	77.1%	67.7%	75.6%	90.6%	77.8%

2.4 Enumeration and Interviewing

Interviewing was carried out after office hours as most farmers would be in their fields during the day.

The questionnaire, which is attached in Annex 2, took into consideration the following variables:-

- 1 Farmers' personal details, NSO reference, interviewer's I.D. number, date of interview
- 2 Fruit and vegetables targeted:-
 - Potatoes and horticultural crops grown in the open
 - Horticultural crops grown under glass
 - Fruit trees including grapes for wine grown in the open
 - Forage
- 3 Areas under each crop
- 4 Whether each crop was irrigated or not
- 5 The number of boxes filled with each respective crop
- 6 The weight per box

The number of boxes by product multiplied by the weight per box is equal to the harvested production of each crop.

$$THP_i = \sum_{n=1}^n (NB_i \cdot WB_i \cdot WT_t)$$

Where:

i is the crop type

n is the number of farms with species with crop i

THP is the total harvested production

NB is the number of boxes with the production harvested

WB is the weight per box with the production harvested

WT is the weight of the agricultural holding

t is the stratum number from stratum 1 to stratum 24

Interviewing time per holding varied depending on the crop diversity of the holding irrespective of the area of each crop within each holding. Holdings with large areas and a diversity of agricultural crops on average took around 45 minutes to complete. On the other hand holdings with few crops took less than 5 minutes to complete

2.5 Unit non-response

In order to deal with unit non-response, post stratification of the actual units surveyed, was taken into consideration. It was decided not to impute data from the Census of Agriculture since this was carried out four years earlier and changes in crop production patterns may have taken place.

In a few cases, the farmer was not able to answer all the questions that were put forward to him. In principle, there was no problem for the

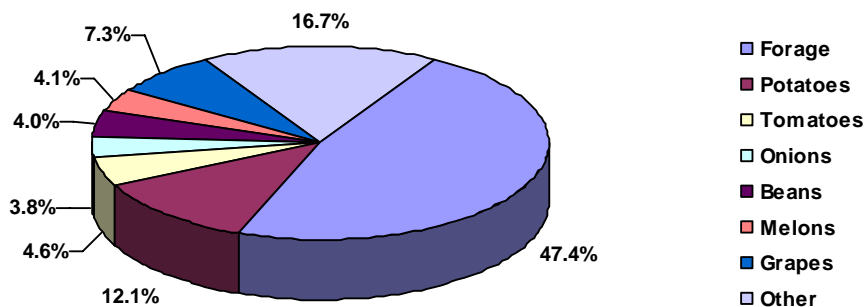
farmer to provide information on areas harvested, however, in a few cases the farmer was not able to provide information on production data. Since the majority of the holdings are a family concern the farmers do not see the need to keep book keeping records. In order to avoid getting inaccurate data it was decided to impute median data from the survey itself. The imputed data can be considered reliable due to the fact that item non-response was not extensive and only a few holdings did not answer the questionnaire comprehensively.

3 Results and Comparisons

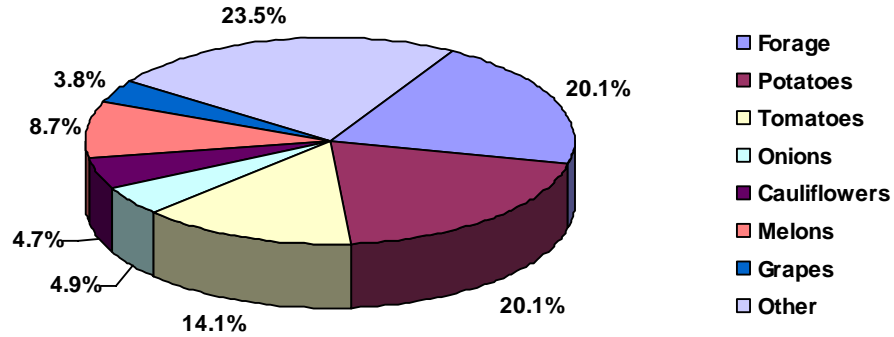
3.1 Findings on structure of the holdings

Prior to this survey, it was not clear whether the administrative sources together with expert advice from the Ministry to estimate the volume of production that bypasses the markets was the best solution. It is important that such a survey was carried out so as to establish a strong base for future estimations both for the compilation of crop products statistics and also for the economic accounts for agriculture. The survey findings will serve to have a clear picture of the fruit, vegetable and forage production within the Maltese Islands. The tables below provide some insight on the results obtained crop production.

Graph 1. Percentage distribution of agricultural area (ha) by type of crop



Graph 2. Percentage distribution of estimated crop production (t) by type of crop



The final results from the Tapas Project gave a total crop production of 106,922 tonnes in 2004, with a percentage error of 4.3 per cent given a 68 per cent level of confidence. This production is significantly higher than the volume which passes through organized markets which stood at 44,513 tonnes during the same period. The primary aim of the survey was to establish the level of production which by passes the market. Table 7 provides a breakdown of some of the most important crops with their corresponding areas, grown in the Maltese Islands during 2004. A worrying factor during the sampling design stage was the fact that crop areas in Malta are rather small and that coefficients of variation could be high. The best results were achieved in the main crops which are potatoes, onions, beans, grapes and forage production.

The volume of production of potatoes, tomatoes and forage accounted to 54.3 per cent of all production.

Table 7. Area (ha) and estimated total crop production (t) by type of crop

	Area (ha) TAPAS survey	CV (%)	Production (t) TAPAS survey	CV (%)	% of total production
Total	8,804	2.6	106,922	4.3	100.0%
<i>of which:</i>					
Potatoes	1,063	4.8	21,527	5.6	20.1%
Tomatoes	405	8.4	15,047	10.6	14.1%
Onions	338	5.2	5,276	6.7	4.9%
Beans	350	5.1	1,990	6.9	1.9%
Vegetable marrows	200	8.1	3,083	9.2	2.9%
Water melons	118	11.3	5,148	11.8	4.8%
Sugar melons	240	10.6	4,172	13.2	3.9%
Cauliflowers	189	11.1	5,065	16.3	4.7%
Cabbages	97	10.5	3,482	12.4	3.3%
Lettuce	79	13.4	2,720	16.1	2.5%
Carrots	63	10.9	1,612	12.5	1.5%
Grapes	645	7.7	4,026	10.3	3.8%
Peaches	145	14.1	1,095	13.1	1.0%
Citrus	90	14.2	1,199	15.5	1.1%
Forage	4,172	4.5	21,542	5.2	20.1%

Table 9 compares the total crop production established within the survey when compared to official market sales at the four organized markets plus the information obtained from tomato processing plants that purchase tomatoes

directly from the farmers and the exports of potatoes that are obtained from the Ministry of Rural Affairs and the Environment (MRAE) every year.

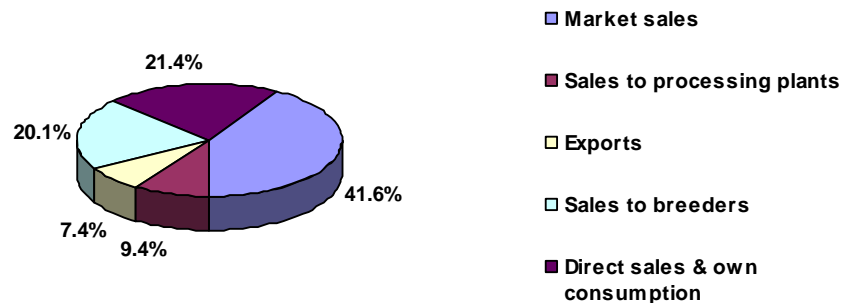
Table 8. Lower and upper limits of estimated total crop production (t) at 68% confidence

	Production (t) TAPAS survey	CV (%)	Lower limit	Upper limit
Total crop production	106,922	4.3	111,520	102,324
<i>of which</i>				
Potatoes	21,527	5.6	22,733	20,321
Tomatoes	15,047	10.6	16,642	13,452
Onions	5,276	6.7	5,629	4,923
Beans	1,990	6.9	2,127	1,853
Vegetable marrows	3,083	9.2	3,367	2,799
Water melons	5,148	11.8	5,755	4,541
Sugar melons	4,172	13.2	4,723	3,621
Cauliflowers	5,065	16.3	5,891	4,239
Cabbages	3,482	12.4	3,914	3,050
Lettuce	2,720	16.1	3,158	2,282
Carrots	1,612	12.5	1,814	1,411
Grapes	4,026	10.3	4,441	3,611
Peaches	1,095	13.1	1,238	952
Citrus	1,199	15.5	1,385	1,013
Forage	21,542	5.2	22,662	20,422

It has now been established that the volume of market sales together with the volume of tomatoes which goes to the processing plants and the volume of exported potatoes account to 58.4 per cent of the total crop production. The two most important arable crops in Malta are potato and tomato growing. Estimated total production of potatoes through the survey amounted to 21.5 thousand tonnes with a coefficient of variation of 5.6 per cent or $\pm 1,206$ tonnes. The lower limit, that is 20.3 thousand tonnes, is greater than the summation of market sales of potatoes and exports of potatoes together, implying that not all the production of potatoes can be accounted for, solely through administrative sources. Since potatoes can be stored for long periods after harvesting, this crop is very popular amongst subsistence farmers. In fact, the survey shows that 839 holdings out of a total of 1,162 holdings (72.2 per cent) grew potatoes.

Forage production is also a main crop as this covers around one half of the utilized agricultural land area.

Chart 3. Percentage distribution of estimated crop production (t) by destination of produce



On the other hand, the results indicate that no direct sales of tomatoes, other than those to official markets and tomato processing plants. Whereas total production of tomatoes amounted to roughly 15,000 tonnes with a coefficient of variation of 10.6 per cent or $\pm 1,595$ tonnes, the total harvested production that was taken to the markets and the processing plants totaled 15,000 tonnes too. Since this is a perishable crop, it must be sold as soon as it is harvested.

Table 9. Distribution of crop produce (t) by administrative source

	Production (t) TAPAS survey	Total production from administrative sources (t)	<i>of which:</i>	
			Market sales (t)	Other administrative sources (t)
Total crop production	106,922	62,489	44,514	17,975
<i>of which</i>				
Potatoes	21,527	14,001	6,054	7,947
Tomatoes	15,047	15,051	5,023	10,028
Onions	5,276	2,254	2,254	-
Beans	1,990	467	467	-
Vegetable marrows	3,083	3,046	3,046	-
Water melons	5,148	4,400	4,400	-
Sugar melons	4,172	2,871	2,871	-
Cauliflowers	5,065	3,186	3,186	-
Cabbages	3,482	2,634	2,634	-
Lettuce	2,720	2,237	2,237	-
Carrots	1,612	1,648	1,648	-
Grapes	4,026	476	476	-
Peaches	1,095	761	761	-
Citrus	1,199	593	593	-
Forage	21,542	-	-	-

Table 10 shows the percentage comparison between the total production from the survey, and the volume of produce that can be collected directly from administrative sources. It can safely be concluded that there are no direct sales for tomatoes, carrots and vegetable marrows and administrative

sources are very reliable. As for beans, onions and grapes this is absolutely the opposite as only a small percentage pass through the official markets. As for grape production, the produce is sold directly to the vintners for the production of wine or used for the production of wine on the holding. On the other hand the production of beans and onions are mainly grown by part time farmers and are either consumed on the holding or sold directly. Apart from potato growing, the growing of beans and onions are the second and third main crop grown.

A substantial volume of certain crops, namely sugar melons, water melons, cabbages and cauliflowers are sold directly by the holding and by pass the official market. A list of crop products, with total production from the survey in comparison with data obtained from official sources is found in Annex 1.

Table 10. Comparison between estimated total crop production (t) and crop produce (t) from administrative sources

	Production (t) TAPAS survey	Total production (t) from administrative sources	%
Total crop production	106,922	62,489	58.4%
<i>of which</i>			
Potatoes	21,527	14,001	65.0%
Tomatoes	15,047	15,051	100.0%
Onions	5,276	2,254	42.7%
Beans	1,990	467	23.5%
Vegetable marrows	3,083	3,046	98.8%
Water melons	5,148	4,400	85.5%
Sugar melons	4,172	2,871	68.8%
Cauliflowers	5,065	3,186	62.9%

Cabbages	3,482	2,634	75.6%
Lettuce	2,720	2,237	82.2%
Carrots	1,612	1,648	102.2%
Grapes	4,026	476	11.8%
Peaches	1,095	761	69.5%
Citrus	1,199	593	49.5%
Forage	21,542	-	-

4 Conclusion

This study concludes that the set of coefficients which were applied earlier should be revised should be replaced by the coefficients obtained from the 'TAPAS' project. The available administrative sources should be used in conjunction with the coefficients established by the project.

It is not clear whether the practice of sales has changed over the years or whether the methods applied in this study are more sophisticated. The total estimated production is primarily used to compile the Economic Accounts for Agriculture.

Whereas the coefficients used in estimating total crop production were obtained after consultation with the Ministry officials, this time round, the data compiled from the survey was obtained directly from farmers.

Much attention was given to the stratification of the sample as it was imperative that, given certain constraints, it was essential to make the sample as representative as possible. Such constraints included limited resources, non-response, sampling constraints such as dealing with

small numbers rendered it difficult to obtain high quality data on all the crops on the holding.

In light of the above constraints, the TAPAS action plan has aided the National Statistics Office in ensuring better quality data. This survey will definitely have a positive effect on the compilation of the Economic Accounts for Agriculture and also on the compilation of the National Accounts.

Annex 1: List of coefficients

Crop product	Total Estimated Production	Total Production from Administrative Sources	Coefficient
Artichokes Globe	963,393	362,650	2.7
Artichokes Jerusalem	105,328	101,308	-
Beans Broad	1,990,009	466,968	4.3
Beans French	51,406	69,083	-
Beetroot	251,599	165,442	1.5
Bellpepper	1,019,728	766,687	1.3
Broccoli	417,226	372,604	-
Cabbages	3,503,260	2,634,477	1.3
Cabbages - Red	0	98,608	-
Carrots	1,611,869	1,648,402	-
Cauliflowers	5,064,793	3,186,057	1.6
Celery	296,032	440,270	-
Chickpeas	8,545	15,746	-
Cucumber	575,858	686,722	-
Eggplant	698,870	729,018	-
Endive	171,420	129,808	1.3
Garlic	397,876	347,109	-
Gourds	168,373	132,042	1.3
Kohlrabi	949,227	827,056	1.1
Leeks	170,073	181,383	-
Lettuce	2,728,023	2,237,281	1.2
Marrows Long	430,579	383,730	-
Marrows Vegetable	3,082,556	3,046,122	-
Melons Sugar	4,171,784	2,870,737	1.5
Melons Water	5,006,024	4,400,273	1.1
Melons Winter	0	306,773	-
Mushrooms	83,855	117,236	-
Onions	5,275,662	2,276,479	2.3
Parsley	256,919	388,731	-
Peas	85,214	32,090	2.7
Potatoes	21,526,727	14,001,742	1.5
Pumpkins	1,320,752	546,406	2.4
Radishes	29,661	19,927	-
Spinach	247,213	265,137	-
Sprouts Brussels		14,531	-
Tomatoes	15,047,395	15,051,765	-
Other Vegetables	146538	567,002	-
Total Vegetables	77,853,786	59,887,399	

Crop product	Total Estimated Production	Total Production from Administrative Sources	Coefficient
Apples	42,238	15,603	2.7
Apricots	35,485	10,242	3.5
Bambinella	32,721	14,903	2.2
Banana	0	151	-
Blackberries	527	149	3.5
Figs	215,464	136,055	1.6
Grapefruit	5,517	6,466	-
Grapes	4,025,731	476,853	8.4
Lemons	518,879	302,960	1.7
Medlars	7,521	6,617	-
Mulberries	0	484	-
Nectarines	142,748	178,866	-
Oranges	636,922	270,349	2.4
Peaches	1,094,557	761,252	1.4
Pears	36,899	17,244	2.1
Pears Prickly	21,383	13,199	1.6
Plums	187,113	2,383	78.5
Plums Cherry	26,782	27,326	-
Pomegranates	60,961	41,898	1.5
Prunes	962	1,849	-
Strawberries	324,429	268,816	1.2
Tangerines	47,195	19,622	2.4
Olives	61,497	1,961	31.4
Other Fruits		26,888	-
Total Fruits	7,525,531	2,575,247	

Crop product	Total Estimated Production	Total Production from Administrative Sources	Coefficient
Forage	21,542,256	-	



Haxix u Frott

NSO Reference	
Mr/Mrs/Ms/Messrs	
Dar Nru / Isem <i>House No / Name</i>	
Triq <i>Street</i>	
Lokalita' <i>Locality</i>	

Ibdeġ fejn japplika <i>Change where applicable</i>	Mr/Mrs/Ms/Me SSRS	
	Dar Nru / Isem <i>House No / Name</i>	
	Triq <i>Street</i>	
	Lokalita' <i>Locality</i>	

Enumeratu <i>Enumerator</i>	
Data <i>Date</i>	

PROĠETT TAPAS - } axix u Frott Raba' u Produzzjoni 2004

TAPAS PROJECT - Fruit and Vegetables
Area and Production 2004

It-tagħrif qiegħed jintalab bis-setgħa ta' l-Att XXIV ta' l-2000 li waqqaf l-Awtorita' ta' l-Istatistika ta' Malta.
Din l-informazzjoni tintu'ja biss għal skop ta' [bir ta' statistika u analiżi.
Hemm kontemplati penaltajiet amministrattivi f'ka' ta' nuqqas ta' koperazzjoni u dikjarazzjonijiet foloz

Supply of data is compulsory under the Malta Statistics Authority Act XXIV 2000.
Data will be used for statistical purposes only.
Refusal or false declarations may incur penalties.

KUNFIDENZJALI WARA LI JIMTELA

CONFIDENTIAL AFTER FILLED IN

Firma
Signature

□ □ □ □ □ □ □ □
Nru Tel
Tel No.

□ □ □ □ □ □ □ □
Nru Karta ta' l-Identita'
Id Card No.



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agric@nso.gov.mt, <http://www.nso.gov.mt>



	Area			Output / Kg		
	Area under crop	Irrigated		Production	No. of boxes	Weight per box
		Yes	No			
] axix fil-miftu] <i>Vegetables in the open</i>						
Qaqo` Artichokes Globe						
Arti` oks Artichokes Jerusalem						
Ful Broad Beans						
Fa`ola Beans French						
Pitravi Beetroot						
B`ar a]dar Bellpepper						
Broccoli Broccoli						
Kabo`i Cabbages						
Karrotti Carrots						
Pastard Cauliflowers						
] jar Cucumber						
Brun[iel Eggplant						
Indivja Endive						
Tewm Niexef Garlic Dry						
Tewm A]dar Garlic Green						
Qara` Rotta Gourds						
{ idra Kholrabi						
] ass Lettuce						
Qara` Twil Marrows Long						
Qara` bag]li Vegetable Marrows						
Bettieg] Sugar Melons						
Dullieg] Water Melons						
Basal Onions						
Patata <i>Potatoes</i>						
Qara` } amra Pumpkins						
Spina` l Spinach						
Tadam Tomatoes						

	Area			Output / Kg		
	Area under crop	Irrigated		Production	No. of boxes	Weight per box
		Yes	No			
Serra <i>Greenhouse</i>						
Tadam	Tomatoes					
}jar	Cucumber					
B\ar a]dar	Bellpepper					
Brun[iel	Eggplant					
Fjuri	Flowers					
Frott <i>Fruit</i>						
Bambinella	Bambinella					
Bajtar ta' S. Gwann	Figs Early					
G]eneb (kwalita)	Grapes (quality)					
G]eneb (mhux tal-kwalita)	Grapes (non-quality)					
G]eneb g]all-ikel	Grapes for table use					
Lumi	Lemons					
Lumi`ell	Lemons Sweet					
Naspli	Medlars					
Nu`iprisk	Nectarines					
Lumi Larin[Sweet oranges					
Larin[Oranges					
}aw]	Peaches					
G]ajnbaqar	Plums					
Cherry Plums	Plums Cherry					
Mandolin	Tangerines					
Frawli	Strawberries					
]ebbu[Olives					
Mag]lef <i>Forage</i>					No. of bales	
Qam]	Wheat					
Xg]ir	Barley					
Silla	Clover					