

Standard Report
on
Methods and Quality (v1)
for
Area, Yield and Production of Crops

This documentation applies to the reporting period:

Annual

Last edited: 07/11/08

CENTRAL STATISTICS OFFICE

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1 Overview

The "Area, Yield and Production of Crops" release is an annual release. It presents estimates of the area, yield and production of the main arable crops for a given year, together with the comparable estimates for the previous two years.

The area estimates are obtained from the CSO June Agricultural Survey, (please see separate Quality Report for June Survey for further details) and the yield estimates are obtained from a joint survey conducted by Teagasc and the CSO. The production figures are calculated by multiplying the area figure by the average yield figure at county level and then aggregating to the State level.

Crop Harvest Report Forms are posted out to Teagasc offices country-wide mid August/September. These are keyed into a dataset on return and follow-up phone-calls are made to non-responders to maximise the response.

Principal output is the Area, Yield and Production of Crops release.

2 General Information

2.1 Statistical Category

Primary statistical survey.

2.2 Area of Activity

Agricultural Statistics.

2.3 Organisational Unit Responsible, Persons to Contact

Business Statistics, Agriculture Division.

Fiona O'Callaghan Tel. +353 21 4535705 email: fiona.ocallaghan@csso.ie

2.4 Objectives and Purpose; History

The objective of the survey is to provide an estimate of the area, yield and production of crops in Ireland on an annual basis. Results from this release are used by the Agricultural Accounts section of the CSO and by EuroStat.

2.5 Periodicity

The Crop Harvest survey is carried out on an annual basis and consists of an annual release.

2.6 Client

Until 1990 the data were supplied to Eurostat in accordance with "gentlemen's agreements" and according to common rules drawn up by a working party. There has been a Regulation on cereals since 1990:

Statistics on cereals in the EU are governed by Council Regulation No. 837/90 of 26 March 1990.

Statistics on crop products other than cereals are governed by Council Regulation (EEC) No. 959/93 of 5 April 1993.

2.7 Users

Eurostat
Dept. of Agriculture, Fisheries and Food
Teagasc
Other sections within the CSO
Researchers
The general public

2.8 Legal basis

Statistics on cereals in the EU are governed by Council Regulation No. 837/90 of 26 March 1990.

Statistics on crop products other than cereals are governed by Council Regulation (EEC) No. 959/93 of 5 April 1993.

3 Statistical Concepts, Methods

3.1 Subject of the Statistics

Principal subject area is the area, yield and production of crops in Ireland.

3.2 Units of Observation/Collection Units/Units of Presentation

Crop Harvest Report Forms are sent out to a list of Teagasc Advisers (one per county) who complete the form and return it directly to a Teagasc contact who then returns the forms to CSO. Units of observations are the individual Teagasc Advisers. Returns are made at a county level and calculations are performed at county level, but final results are presented at State level.

Area is presented in Hectares, Yield is presented in Tonnes per Hectare, and Production is presented in Tonnes.

3.3 Data Sources

The area estimates are obtained from the CSO June Agricultural Survey, and the yield estimates are obtained from the Crop Harvest survey.

3.4 Reporting Unit/Respondents

Crop Harvest Report Forms are sent out to a list of Teagasc Advisers who complete the form and return it directly to a Teagasc contact who then return the forms to CSO. Respondents are the individual Teagasc Advisers.

3.5 Type of Survey/Process

Census of county Teagasc Advisers. Forms are sent out to a list of Teagasc Advisers who complete the form and return it directly to a Teagasc contact who then return the forms to CSO.

3.6 Characteristics of the Sample/Process

3.6.1 Population and Sampling Frame

The register consists of the list of Teagasc crop specialists. A report is sent to everyone on the list.

3.6.2 Sampling Design

Not applicable.

3.7 Survey Technique/Data Transfer

The Crop Harvest report forms are sent to a Teagasc co-ordinator who then sends out the reports to the various county advisers country-wide. Forms are returned to the Teagasc co-ordinator who in turn sends the forms to CSO. The area estimates are obtained from the CSO June Agricultural Survey for the corresponding year.

3.8 Questionnaire (including explanations)

Survey form consists of an EXCEL spreadsheet that is sent via email to the various advisers. A copy of the 2008 Survey form is included as an Appendix to this report (see page 10).

3.9 Participation in the Survey

Participation in the survey is voluntary.

3.10 Characteristics of the Survey/Process and its Results

Yield figures (tonnes per hectare) are collected for Cereals, and various other crops. A separate figure is given for early and main crop potatoes, and this figure has to be combined to give an overall figure. This is done by applying a percentage under early and main for each county. Areas for each crop need to be calculated by county. This is done by taking the most recent area figures (from the June survey) and apportioning out the area into the various counties according to the proportions observed in the Census of Agriculture (2000). All calculations are performed at a county level and results are aggregated and published at State level.

3.11 Classifications used

Not applicable.

3.12 Regional Breakdown of Results

Results are published at State level.

4 Production of the Statistics, Data Processing, Quality Assurance

4.1 Data Capture

Data are manually entered into an EXCEL spreadsheet that is then imported into PC SAS for analysis.

4.2 Coding

Not applicable.

4.3 Data Editing

As there is only one return per county, the data editing is a relatively easy task. The most common error would be that yield is reported as tonnes per acre instead of per hectare and this can be spotted by checking the range and consistency from year to year. Sometimes follow up phonecalls will be used to clarify any data changes. Data editing is performed in EXCEL or SAS.

4.4 Imputation (for Non-Response or Incomplete Data Sets)

Some ad-hoc imputation is performed in consultation with an expert from Teagasc – where values from a “similar” county might be used to fill in for a missing value for a particular county.

4.5 Grossing and Weighting

Not applicable.

4.6 Computation of Outputs, Estimation Methods Used

The yield figures are given on a "green" (as harvested) basis. The winter wheat yield refers to feed wheat and the spring barley yield refers to feed barley. The beans and peas yield is a simple average of the beans yield and the peas yield as only an aggregated beans and peas area estimate is available. Similarly, the oilseed rape yield is a simple average of the winter yield and the spring yield as only a total oilseed rape area estimate is available.

For potatoes, the early crop yield was applied to a proportion of the area under potatoes based on the area grown under the early potato varieties in each county. The main crop yield was applied to the remaining area. The yield of fodder beet refers to fodder beet roots only.

The production data is generally calculated by multiplying the area figure by the average yield figure at state level.

4.7 Other Quality Assurance Techniques Used

Results are usually reviewed by Teagasc experts prior to publication to ensure trends etc. are in line with what is expected.

5 Quality

5.1 Relevance

Statistics on cereals in the EU are governed by Council Regulation No. 837/90 of 26 March 1990.

Statistics on crop products other than cereals are governed by Council Regulation (EEC) No. 959/93 of 5 April 1993.

EuroStat
Dept. of Agriculture, Fisheries and Food
Teagasc
Other CSO Departments
IFA
Researchers

Data from this analysis is published by EuroStat for EU-27.

Results are also used by Teagasc in their annual Harvest Report, and by CSO's Agriculture Accounts division.

5.2 Accuracy and Reliability

5.2.1. Sampling Effect & representivity

Not applicable.

5.2.2. Non-Sampling Effects

Not applicable - but please see June Survey Quality Report.

5.2.2.1 Quality of the Data Sources used (other than survey register)

Not applicable.

5.2.2.2 Register Coverage

Not applicable.

5.2.2.3 Non-response (Unit and Item)

There is unit non-response in some instances. For some variables (crops) the quantities are small and imputations are not performed, but for the larger quantities, either follow-up phone-calls are used to get responses or else a Teagasc expert will advise on which counties could be used to impute for missing values. Item non-response is handled in the same way.

5.2.2.4 Measurement Errors

The survey is run jointly with Teagasc, and the questionnaire is sent to and completed by Teagasc advisers so it is unlikely that measurement error is an issue here. Consequently this document only outlines the survey methodology quality issues for the Teagasc survey. For details of the measurement errors associated with the June Survey, please see the separate June Survey Quality Report.

5.2.2.5 Processing Errors

Data is entered manually into either an Excel spreadsheet or a SAS dataset. There is the possibility of typing errors at this point, but data is checked, and ranges etc. are also checked after data entry.

5.2.2.6 Model-related Effects

No grossing or weighting is performed. Imputation is used in certain instances, but it is based on direct consultation with Teagasc advisers. Where imputation is not used, estimates are calculated based only on those counties that responded.

5.3 Timeliness and Punctuality

5.3.1 Provisional Results

No provisional results are produced. Early estimates are supplied to EuroStat and these are provided to CSO by Teagasc.

5.3.2 Final Results

Results are usually published in September of t+1.

5.4 Coherence

The area figures (from the June Survey) are checked with the DAFF and Teagasc prior to publication to ensure consistency with their figures.

5.5 Comparability

Comparisons are made with the previous year.

Comparisons would also be made with what is reported in farming newspapers regarding expected yields etc.

5.6 Accessibility and Clarity

5.6.1 Assistance to Users, Special Analyses

Methodological details given in the background notes of the release.

<http://www.cso.ie/releasespublications/documents/agriculture/current/aypcrop.pdf>

5.6.2 Revisions

Revisions are annotated as such in any published tables.

5.6.3 Publications

5.6.3.1 Releases, Regular Publications

Area, Yield and Production of Crops

5.6.3.2 Statistical Reports

Results are published in the Annual CSO Yearbook.

Crop Production figures are published by EuroStat for EU-27.

5.6.3.3 Internet

<http://www.cso.ie/releasespublications/documents/agriculture/current/aypcrop.pdf>

5.6.4 Confidentiality

Given the nature of the data, confidentiality is not an issue.

6 Additional documentation and publications

Crop Production figures are published by EuroStat for EU-27.

The entry for this statistic under StatCentral (the portal to Ireland's official statistics) is at

<http://www.statcentral.ie/viewStat.asp?id=143>

APPENDIX

Central Statistics Office	Teagasc Agriculture and Food Development Authority
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LoCall 1890 313 414 or
(021) 453 5316 or
(021) 453 5373

TEAGASC
/ CSO

Crop Harvest Report Form

YEAR : 2008

Date of Report	
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County:	
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District:	
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Signature:	Date:
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When completed, return to :
Tim O' Donovan
Crops Specialist
Teagasc
Moorepark
Fermoy
Co.Cork
Tel. 025 42244

tim.odonovan@teagasc.ie

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1. Yields

CROP	Harvested so far (%)	Date when harvest is likely to be completed	YIELD* (tonnes/hectares)		Average	Moisture Content (%)		
			Range			Range		Average
			min	max		min	max	
Winter Cereals								
Barley								
Wheat -Feed								
Wheat-Milling								
Oats								
Spring								
Barley-Feed								
Barley-Malting								
Wheat								
Oats								
Oilseed Rape								
Winter								
Spring								
Linseed								
Spring								
Pulses								
Peas								
Beans								
Root Crops								
Potatoes - Earlier								
Potatoes -Main Crop								
Swedes/Turnips								
Fodder Beet								
Silage								

2. Hectolitre Weight/Lodging/Disposal										
CROP	Hectolitre Weight (kg/hl)		Lodging/ Storm	Grain Disposal				Straw		
	Range min-max	Average	% of area affected	sold direct	stored for	stored for	Price * €/tonne	Price per	%	%
					later sale	feed		hectare	sold	burnt
				%			€			
Winter Cereals										
Barley										
Wheat-Feed										
Wheat-Milling										
Oats										
Spring Cereals										
Barley-Feed										
Barley-Malting										
Wheat										
Oats										
Oilseeds Rape										
Winter										
Spring										
Linseed										
Spring										
Pulses										
Peas										
Beans										
Silage										

Maize silage											
* Price/Tonne @20% moisture content, delivered.							Price exclusive of VAT.				

3.Remarks			
CROP	(1) Harvesting	(2) Crop Quality	(3) Market Activity
Winter Cereals			
Barley			
Wheat -Feed			
Wheat-Milling			
Oats			
Spring			
Barley-Feed			
Barley-Malting			
Wheat			
Oats			
Oilseed Rape			
Winter			
Spring			
Linseed			
Spring			
Pulses			
Peas			
Beans			
Root Crops			
Potatoes			
Swedes/Turnips			
Fodder Beet			
Kale/Field Cabbage			
Silage			
Maize silage			

TEAGASC/ CENTRAL STATISTICS OFFICE

Notes on the completion of the 2008 Crop Harvest Reports

These reports will be used by Teagasc in preparing the regular Harvest Reports and by the Central Statistics Office in the compilation of crop yield and production estimates. Please ensure that, where indicated, the information provided is given in **HECTARES**.

County

Each Crop Harvest Report should relate to one County only. This will enable county crop production estimates to be made. Tipperary North and South Riding should be treated as separate counties.

Crop Failures/ Poor Yields

The returns should represent the overall average situation for the County. It is essential that the figures are representative of all sizes of farms and yield levels.

Definition of yield

The yield of a crop is the number of tonnes of the crop harvested per hectare of land devoted to that crop, i.e. the net area on the area aid form.

Notes on particular crops

Winter crops are those sown in 2007 for harvesting in 2008. *Spring* crops are those sown and harvested in 2008.

Yields should be given on a "green" (as harvested) basis.

Linseed refers to linseed grown for oil. If any flax is grown in your area please note this on page 4.

Give only the yield of sound *potatoes*. If any information is available on potatoes which were diseased at harvest time, note this on page 4.

Swedes/ turnips refers to crops grown for livestock feed.

Record the yield of *fodder beet* roots only. If any information is available on the yield of fodder beet tops, note this on page 4.

Remarks

Record here any other information you consider relevant to the Harvest Report.