

# Good Growth Plan 2015-2017

**Syngenta**

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visit\_data\_catalog\_at: <https://microdata.worldbank.org/index.php>

## Identification

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SURVEY ID NUMBER  
GBR\_2015-2017\_GGP-P\_v01\_M\_v01\_A\_OCS

TITLE  
Good Growth Plan 2015-2017

COUNTRY/ECONOMY

Name	Country code
United Kingdom	GBR

STUDY TYPE  
Agricultural Survey [ag/oth]

### ABSTRACT

Syngenta is committed to increasing crop productivity and to using limited resources such as land, water and inputs more efficiently. Since 2014, Syngenta has been measuring trends in agricultural input efficiency on a global network of real farms. The Good Growth Plan dataset shows aggregated productivity and resource efficiency indicators by harvest year. The data has been collected from more than 4,000 farms and covers more than 20 different crops in 46 countries. The data (except USA data and for Barley in UK, Germany, Poland, Czech Republic, France and Spain) was collected, consolidated and reported by Kynetec (previously Market Probe), an independent market research agency. It can be used as benchmarks for crop yield and input efficiency.

KIND OF DATA  
Sample survey data [ssd]

UNIT OF ANALYSIS  
Agricultural holdings

## Scope

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### NOTES

Data was collected on the usage of inputs, such as crop protection products, chemical fertilizer, seeding rates, labor hours, machinery usage hours, and marketable crop yield on a per hectare basis.

### TOPICS

Topic	Vocabulary
Agriculture & Rural Development	FAO
Environment	FAO
Agricultural input efficiency	FAO

### KEYWORDS

Keyword
Input efficiency
Crop productivity
Agriculture
The Good Growth Plan

## Coverage

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### GEOGRAPHIC COVERAGE

National coverage

## Producers and sponsors

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### PRIMARY INVESTIGATORS

Name
Syngenta

### PRODUCERS

Name	Role
Kynetec	Technical assistance

## Sampling

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### SAMPLING PROCEDURE

#### A. Sample design

Farms are grouped in clusters, which represent a crop grown in an area with homogenous agro- ecological conditions and include comparable types of farms. The sample includes reference and benchmark farms. The reference farms were selected by Syngenta and the benchmark farms were randomly selected by Kynetec within the same cluster.

#### B. Sample size

Sample sizes for each cluster are determined with the aim to measure statistically significant increases in crop efficiency over time. This is done by Kynetec based on target productivity increases and assumptions regarding the variability of farm metrics in each cluster. The smaller the expected increase, the larger the sample size needed to measure significant differences over time. Variability within clusters is assumed based on public research and expert opinion. In addition, growers are also grouped in clusters as a means of keeping variances under control, as well as distinguishing between growers in terms of crop size, region and technological level. A minimum sample size of 20 interviews per cluster is needed. The minimum number of reference farms is 5 of 20. The optimal number of reference farms is 10 of 20 (balanced sample)

#### C. Selection procedure

The respondents were picked randomly using a “quota based random sampling” procedure. Growers were first randomly selected and then checked if they complied with the quotas for crops, region, farm size etc. To avoid clustering high number of interviews at one sampling point, interviewers were instructed to do a maximum of 5 interviews in one village.

## data\_collection

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### DATES OF DATA COLLECTION

Start	End
2015	2017

### DATA COLLECTION MODE

Face-to-face [f2f]

## questionnaires

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### QUESTIONNAIRES

Data collection tool for 2019 covered the following information:

**(A) PRE- HARVEST INFORMATION**

PART I: Screening

PART II: Contact Information

PART III: Farm Characteristics

a. Biodiversity conservation

b. Soil conservation

c. Soil erosion

d. Description of growing area

e. Training on crop cultivation and safety measures

PART IV: Farming Practices - Before Harvest

a. Planting and fruit development - Field crops

b. Planting and fruit development - Tree crops

c. Planting and fruit development - Sugarcane

d. Planting and fruit development - Cauliflower

e. Seed treatment

**(B) HARVEST INFORMATION**

PART V: Farming Practices - After Harvest

a. Fertilizer usage

b. Crop protection products

c. Harvest timing & quality per crop - Field crops

d. Harvest timing & quality per crop - Tree crops

e. Harvest timing & quality per crop - Sugarcane

f. Harvest timing & quality per crop - Banana

g. After harvest

PART VI - Other inputs - After Harvest

a. Input costs

b. Abiotic stress

c. Irrigation

See all questionnaires in external materials tab.

## **data\_processing**

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### DATA EDITING

Data processing:

Kynetec uses SPSS (Statistical Package for the Social Sciences) for data entry, cleaning, analysis, and reporting. After collection, the farm data is entered into a local database, reviewed, and quality-checked by the local Kynetec agency. In the case of missing values or inconsistencies, farmers are re-contacted. In some cases, grower data is verified with local experts (e.g. retailers) to ensure data accuracy and validity. After country-level cleaning, the farm-level data is submitted to the global Kynetec headquarters for processing. In the case of missing values or inconsistencies, the local Kynetec office was re-contacted to clarify and solve issues.

### Quality assurance

Various consistency checks and internal controls are implemented throughout the entire data collection and reporting process in order to ensure unbiased, high quality data.

- Screening: Each grower is screened and selected by Kynetec based on cluster-specific criteria to ensure a comparable group of growers within each cluster. This helps keeping variability low.
- Evaluation of the questionnaire: The questionnaire aligns with the global objective of the project and is adapted to the local context (e.g. interviewers and growers should understand what is asked). Each year the questionnaire is evaluated based on several criteria, and updated where needed.
- Briefing of interviewers: Each year, local interviewers - familiar with the local context of farming - are thoroughly briefed to fully comprehend the questionnaire to obtain unbiased, accurate answers from respondents.
- Cross-validation of the answers:

- o Kynetec captures all growers' responses through a digital data-entry tool. Various logical and consistency checks are automated in this tool (e.g. total crop size in hectares cannot be larger than farm size)
- o Kynetec cross validates the answers of the growers in three different ways:
  1. Within the grower (check if growers respond consistently during the interview)
  2. Across years (check if growers respond consistently throughout the years)
  3. Within cluster (compare a grower's responses with those of others in the group)
- o All the above mentioned inconsistencies are followed up by contacting the growers and asking them to verify their answers. The data is updated after verification. All updates are tracked.
- Check and discuss evolutions and patterns: Global evolutions are calculated, discussed and reviewed on a monthly basis jointly by Kynetec and Syngenta.
- Sensitivity analysis: sensitivity analysis is conducted to evaluate the global results in terms of outliers, retention rates and overall statistical robustness. The results of the sensitivity analysis are discussed jointly by Kynetec and Syngenta.
- It is recommended that users interested in using the administrative level 1 variable in the location dataset use this variable with care and crosscheck it with the postal code variable.

## **data\_appraisal**

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### DATA APPRAISAL

Due to the above mentioned checks, irregularities in fertilizer usage data were discovered which had to be corrected:

For data collection wave 2014, respondents were asked to give a total estimate of the fertilizer NPK-rates that were applied in the fields. From 2015 onwards, the questionnaire was redesigned to be more precise and obtain data by individual fertilizer products. The new method of measuring fertilizer inputs leads to more accurate results, but also makes a year-on-year comparison difficult. After evaluating several solutions to this problems, 2014 fertilizer usage (NPK input) was re-estimated by calculating a weighted average of fertilizer usage in the following years.

## **Access policy**

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### CONTACTS

Name	Affiliation	Email	URL
The Good Growth Plan team	Syngenta	goodgrowthplan.data@syngenta.com	<a href="#">Link</a>

### CONFIDENTIALITY

The users shall not take any action with the purpose of identifying any individual entity (i.e. person, household, enterprise, etc.) in the micro dataset(s). If such a disclosure is made inadvertently, no use will be made of the information, and it will be reported immediately to FAO

### ACCESS CONDITIONS

Micro datasets disseminated by FAO shall only be allowed for research and statistical purposes. Users requesting access to any datasets must agree to the following minimal conditions:

- The micro dataset will only be used for statistical and/or research purposes;
- Any results derived from the micro dataset will be used solely for reporting aggregated information, and not for any specific individual entities or data subjects;
- The users shall not take any action with the purpose of identifying any individual entity (i.e. person, household, enterprise, etc.) in the micro dataset(s). If such a disclosure is made inadvertently, no use will be made of the information, and it will be reported immediately to FAO;
- The micro dataset cannot be re-disseminated by users or shared with anyone other than the individuals that are granted access to the micro dataset by FAO.

### CITATION REQUIREMENTS

The Good Growth Plan Progress Data - Productivity 2019

## Disclaimer and copyrights

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### DISCLAIMER

The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses

## Metadata production

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### DDI DOCUMENT ID

DDI\_GBR\_2015-2017\_GGP-P\_v01\_M\_v01\_A\_OCS

### PRODUCERS

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Metadata producer
Development Economics Data Group	DECDG	The World Bank	Metadata adapted for World Bank Microdata Library

### DATE OF METADATA PRODUCTION

2022-11-18

### DDI DOCUMENT VERSION

Version 01 (November 2022): This metadata was downloaded from the FAO website (<https://microdata.fao.org/index.php/catalog>) and it is identical to FAO version (GBR\_2015-2017\_GGP-P\_v01\_EN\_M\_A\_OCS). The following two metadata fields were edited - Document ID and Survey ID.

**data\_dictionary**

<b>Data file</b>	<b>Cases</b>	<b>variables</b>
<b>fertilizers</b>	0	16
<b>seed_treatment</b>	0	22
<b>Farm_level_data</b>	0	24
<b>Global_farm_data</b>	0	18
<b>Crop_protection</b>	0	27
<b>Location</b>	0	14



**Data file: fertilizers**

Cases:	0
variables:	16

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**variables**

ID	Name	Label	Question
V1	harvestyear	Data collection wave	
V2	GrowingArea	To which field/plot does the information relate to?	
V3	ClusterID	Unique cluster ID	
V4	country	Country	
V5	Farmtype	Farm Type	
V6	GrowerID	Unique respondent ID	
V7	product	Unique code of a product that was applied	
V8	crop	The crop of focus	
V9	q229ca	Q229C a. Timing of (fertilizer) application AREA A	
V10	q229cb	Q229C b. Type of product	
V11	q229cd	Q229C d. Dosage (in KG/HECT or LITER/HECT)	
V12	q229ce	Q229C e. Unit of quantity	
V13	q229cf	Q229C f. Amount of H2O solved in LITERS per HECT	
V14	q229cg	Q229C g. Percentage N (in %)	
V15	q229ch	Q229C h. Percentage P (P2O5) (in %)	
V16	q229ci	Q229C i. Percentage K (K2O) (in %)	

total: 16

**Data file: seed\_treatment**

Cases:	0
variables:	22

**variables**

ID	Name	Label	Question
V17	harvestyear	Data collection wave	
V18	GrowingArea	To which field/plot does the information relate to?	
V19	ClusterID	Unique cluster ID	
V20	country	Country	
V21	Farmtype	FARMTYPE	
V22	GrowerID	Unique respondent ID	
V23	product	Unique code of a product that was applied	
V24	crop	The crop of focus	
V25	q73	What is the amount of seeds in <KG> that has been sown per <HECT> ?	
V26	q233c_b	Q233C. b. Type of product	
V27	q233c_c	Q233C. c. Brand product name	
V28	q233c_c2	Q233C. c2. Brand product formulation	
V29	c233c_c	CODED VARIABLE - stringcode	
V30	c233ca1	CODED VARIABLE - active ingredient1	
V31	c233cp1	CODED VARIABLE - amount of ai1	
V32	c233cu1	CODED VARIABLE - unit (% or Gr)	
V33	c233ca2	CODED VARIABLE - active ingredient2	
V34	c233cp2	CODED VARIABLE - amount of ai2	
V35	q233c_d	Q233C. d. PRODUCT 1: Dosage	
V36	q233c_e	Q233C. e. PRODUCT 1: Unit of quantity	
V37	q233c_g	Q233C. g. PRODUCT 1: Pest/disease/ weed targeted	
V38	syngenta	CODED VARIABLE Syngenta product? (1 = YES; 0 = NO)	

total: 22

**Data file: Farm\_level\_data**

Cases:	0
variables:	24

**variables**

ID	Name	Label	Question
V39	HarvestYear	Data collection wave	
V40	Region	Syngenta's definition of Region	
V41	Territory	Syngenta's definition of Territory	
V42	GrowingArea	To which field/plot does the information relate to?	
V43	ClusterID	Unique cluster ID	
V44	country	Country	
V45	Farmtype	Farm type	
V46	GrowerID	Unique respondent ID	
V47	Crop	The crop of focus	
V48	AreaSize	Q57. Size of growing area A for <TARG1> in <HECT>	
V49	CropSize	Q5.Total cultivated area of <TARG1> in this season in <HECT>	
V50	Landproductivity	Land efficiency in ton/ha	
V51	PesticideApplicationEfficiency	Number of field applications used per ton produced	
V52	NutrientEfficiency	Kgs of nitrogen used per ton produced	
V53	PhosphorusEfficiency	Kgs of phosphorus used per ton produced	
V54	PotassiumEfficiency	Kgs of potassium used per ton produced	
V55	SeedEfficiency	Kgs of seeds used per ton produced	
V56	PesticideEfficiency	Kgs of active ingredients from pesticides used in kilogram per ton produced	
V57	HerbicideEfficiency	Kgs of active ingredients from herbicides used per ton produced	
V58	FungicideEfficiency	Kgs of active ingredients from fungicides used per ton produced	
V59	InsecticideEfficiency	Kgs of active ingredients from insecticides used per ton produced	
V60	IrrigationWaterEfficiency	Litres of irrigation water used per ton produced	
V61	SyngentaShare	Percentage of syngenta products used compared to total number of products used	
V62	User_vs_non_user	Does the grower use Syngenta products?	

total: 24

**Data file: Global\_farm\_data**

Cases:	0
variables:	18

**variables**

ID	Name	Label	Question
V63	Territory	Syngenta definition of territory (sub-region)	
V64	country	Country	
V65	ClusterID	Unique cluster ID	
V66	GrowerID	Unique respondent ID	
V67	GrowingArea	To which field/plot does the information relate to?	
V68	Farmtype	Farmtype	
V69	crop	Crop of focus	
V70	q19	Q19. Surname	
V71	q20	Q20. First name	
V72	q73	Q73. KGs/HECT of seeds sown for growing area A for <TARGET CROP>	
V73	q231b	Q231B. Are your seeds coated with crop protection products?	
V74	q224	Q224. Do you apply organic fertilizers for <TARGET CROP>?	
V75	q226	Q226. Do you apply chemical fertilizers for <TARGET CROP>?	
V76	q229b1	Q229B1. Total number of applications you perform with chemical fertilizers on growing area for <TARGET CROP>?	
V77	q240d	Q240D. Note down the total number of treatments you perform with crop protection products	
V78	q244	Q244. Marketable yield that has been achieved for growing area A for <TARGET CROP> in <TON> per <HECTARES>?	
V79	q389	Q389. What is the MAIN water source of <TARGET CROP> during this season?	
V80	harvestyear	Data collection wave	

total: 18

**Data file: Crop\_protection**

Cases:	0
variables:	27

**variables**

ID	Name	Label	Question
V81	harvestyear	Data collection wave	
V82	GrowingArea	To which field/plot does the information relate to?	
V83	ClusterID	Unique cluster ID	
V84	country	Country	
V85	Farmtype	FARMTYPE	
V86	GrowerID	Unique respondent ID	
V87	product	Unique code of a product within application	
V88	crop	The crop of focus	
V89	application	Unique code of an application per field per grower	
V90	q241a	Q241 a. Timing of product application	
V91	q241b	Q241 b. Type of product	
V92	q241c	Q241 c . Brand product name	
V93	c241c	CODED VARIABLE - stringcode	
V94	c241ca1	CODED VARIABLE - active ingredient1	
V95	c241cp1	CODED VARIABLE - amount of ai1	
V96	c241cu1	CODED VARIABLE - unit (% or Gr)	
V97	c241ca2	CODED VARIABLE - active ingredient2	
V98	c241cp2	CODED VARIABLE - amount of ai2	
V99	c241ca3	CODED VARIABLE - active ingredient3	
V100	c241cp3	CODED VARIABLE - amount of ai3	
V101	c241cpt	CODED VARIABLE - total amount of ai	
V102	q241d	CODED VARIABLE Q241 d. Dosage ?	
V103	q241e	CODED VARIABLE Q241 e. Unit of quantity	
V104	q241g	Q241 g. Pest/disease/ weed targeted ?	
V105	q241i	Q241 i. Percentage of the area treated against pests/ diseases/ weeds	
V106	q241j	Q241 j. Percentage of crop free of pests/ diseases/ weeds at harvest (in %)	
V107	syngenta	CODED VARIABLE Syngenta product? (1 = YES; 0 = NO)	

total: 27

**Data file: Location**

Cases:	0
variables:	14

**variables**

ID	Name	Label	Question
V108	harvestyear	Year in which the data was collected	
V109	country	Country	
V110	ClusterID	Unique identifier per cluster	
V111	GrowerID	Unique identifier per grower	
V112	GrowingArea	Field code (A or B)	
V113	CORNER	Multiple corners of same field can be registered (only from 2018 onwards)	
V114	q22d_lat_deg	Latitude degrees	
V115	q22d_lat_min	Latitude minutes	
V116	q22d_lat_sec	Latitude seconds	
V117	q22d_lon_deg	Longitude degrees	
V118	q22d_lon_min	Longitude minutes	
V119	q22d_lon_sec	Longitude seconds	
V120	q151	Q151. Open field or in a greenhouse?	
V121	admin_level_1	administrative area 1	

total: 14



## HARVESTYEAR: Data collection wave

**Data file:** fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 2015 - 2017 Format: Numeric

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## Q229CB: Q229C b.Type of product

**Data file:** fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 1 Format: Numeric

### Questions and instructions

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CATEGORIES

Value	Category
1	Chemical fertilizer

---

## GROWINGAREA: To which field/plot does the information relate to?

**Data file:** fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

### Questions and instructions

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CATEGORIES

Value	Category
1	A
2	B

---

## CLUSTERID: Unique cluster ID

**Data file:** fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

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### CATEGORIES

Value	Category
UnitedKingdomBarley1	UnitedKingdomBarley1

---

## COUNTRY: Country

Data file: fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

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### CATEGORIES

Value	Category
United Kingdom Of Great Britain And Northern Ireland	United Kingdom Of Great Britain And Northern Ireland

---

## FARMTYPE: Farm Type

Data file: fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
BF	BF
RF	RF

---

## GROWERID: Unique respondent ID

Data file: fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

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### CATEGORIES

<b>Value</b>	<b>Category</b>
451005	451005
451008	451008
451011	451011
451013	451013
451024	451024
451025	451025
451027	451027
451028	451028
451030	451030
451033	451033
451034	451034
451038	451038
451040	451040
451041	451041
451042	451042
451043	451043
451044	451044
451047	451047
451049	451049
451050	451050
451051	451051
451052	451052
451053	451053
451054	451054
451055	451055
451057	451057
451058	451058
451059	451059
451060	451060
451061	451061
451062	451062
452005	452005
452008	452008
452011	452011
452013	452013

452024	452024
452025	452025
452027	452027
452028	452028
452030	452030
452033	452033
452034	452034
452038	452038
452040	452040
452041	452041
452042	452042
452043	452043
452044	452044
452047	452047
452049	452049
452050	452050
452051	452051
452052	452052
452053	452053
452054	452054
452055	452055
452057	452057
452058	452058
452059	452059
452060	452060
452061	452061
452062	452062

## ■ PRODUCT: Unique code of a product that was applied

**Data file:** fertilizers

### Overview

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

### Questions and instructions

#### CATEGORIES

Value	Category

1	1
10	10
11	11
12	12
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

---

## CROP: The crop of focus

Data file: fertilizers

### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
Barley	Barley

---

## Q229CA: Q229C a. Timing of (fertilizer) application AREA A

Data file: fertilizers

### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
2016-10-31	2016-10-31
2016-11-11	2016-11-11
2017-02-20	2017-02-20

2017-02-22	2017-02-22
2017-02-24	2017-02-24
2017-02-28	2017-02-28
2017-03-07	2017-03-07
2017-03-10	2017-03-10
2017-03-13	2017-03-13
2017-03-15	2017-03-15
2017-03-18	2017-03-18
2017-03-29	2017-03-29

## Q229CD: Q229C d. Dosage (in KG/HECT or LITER/HECT)

**Data file:** fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 1 - 750 Format: Numeric

## Q229CE: Q229C e. Unit of quantity

**Data file:** fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
KG/HECT	KG/HECT
LITER/HECT	LITER/HECT

## Q229CF: Q229C f. Amount of H2O solved in LITERS per HECT

**Data file:** fertilizers

### Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 2 - 2 Format: Numeric

## **Q229CG: Q229C g. Percentage N (in %)**

**Data file:** fertilizers

### **Overview**

Valid: 0    Invalid: 0

Type: Continuous    Decimal: 0    Width: 10    Range: 0 - 100    Format: Numeric

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## **Q229CH: Q229C h. Percentage P (P2O5) (in %)**

**Data file:** fertilizers

### **Overview**

Valid: 0    Invalid: 0

Type: Continuous    Decimal: 0    Width: 10    Range: 0 - 46    Format: Numeric

---

## **Q229CI: Q229C i. Percentage K (K2O) (in %)**

**Data file:** fertilizers

### **Overview**

Valid: 0    Invalid: 0

Type: Continuous    Decimal: 0    Width: 10    Range: 0 - 100    Format: Numeric

---

## **HARVESTYEAR: Data collection wave**

**Data file:** seed\_treatment

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 2015 - 2017 Format: Numeric

---

## **GROWINGAREA: To which field/plot does the information relate to?**

**Data file:** seed\_treatment

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### **Questions and instructions**

---

CATEGORIES

Value	Category
A	A
B	B

---

## **CLUSTERID: Unique cluster ID**

**Data file:** seed\_treatment

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### **Questions and instructions**

---

CATEGORIES

Value	Category
UnitedKingdomBarley1	UnitedKingdomBarley1

---

## **COUNTRY: Country**

**Data file:** seed\_treatment

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
United Kingdom Of Great Britain And Northern Ireland	United Kingdom Of Great Britain And Northern Ireland

---

## FARMTYPE: FARMTYPE

Data file: seed\_treatment

### Overview

Valid: 0 Invalid: 0  
Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
BF	BF
RF	RF

---

## GROWERID: Unique respondent ID

Data file: seed\_treatment

### Overview

Valid: 0 Invalid: 0  
Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
451005	451005
451008	451008
451011	451011
451013	451013
451024	451024
451025	451025
451027	451027
451028	451028
451030	451030

451033	451033
451034	451034
451038	451038
451040	451040
451041	451041
451042	451042
451043	451043
451044	451044
451045	451045
451046	451046
451047	451047
451048	451048
451049	451049
451050	451050
451051	451051
451052	451052
451053	451053
451054	451054
451055	451055
451056	451056
451057	451057
451058	451058
451059	451059
451060	451060
451061	451061
451062	451062
452005	452005
452008	452008
452011	452011
452013	452013
452024	452024
452025	452025
452027	452027
452028	452028
452030	452030
452033	452033
452034	452034
452038	452038
452040	452040

452041	452041
452042	452042
452043	452043
452044	452044
452045	452045
452046	452046
452047	452047
452048	452048
452049	452049
452050	452050
452051	452051
452052	452052
452053	452053
452054	452054
452055	452055
452056	452056
452057	452057
452058	452058
452059	452059
452060	452060
452061	452061
452062	452062

## ■ PRODUCT: Unique code of a product that was applied

**Data file:** seed\_treatment

### Overview

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
1	1
2	2

## CROP: The crop of focus

**Data file:** seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

---

CATEGORIES

Value	Category
Barley	Barley

---

## Q73: What is the amount of seeds in that has been sown per ?

**Data file:** seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 46.96 - 200 Format: Numeric

---

## Q233C\_B: Q233C. b.Type of product

**Data file:** seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

### Questions and instructions

---

CATEGORIES

Value	Category
1	Fungicide
2	Insecticide

---

## Q233C\_C: Q233C. c. Brand product name

**Data file:** seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
confidential	confidential

---

## **Q233C\_C2: Q233C. c2. Brand product formulation**

**Data file:** seed\_treatment

### Overview

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
confidential	confidential

---

## **C233C\_C: CODED VARIABLE - stringcode**

**Data file:** seed\_treatment

### Overview

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
confidential	confidential

---

## **C233CA1: CODED VARIABLE - active ingredient1**

**Data file:** seed\_treatment

### Overview

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
Do not know	Do not know
FLUDIOXONIL	FLUDIOXONIL
PROCHLORAZ	PROCHLORAZ
PROTHIOCONAZOLE?	PROTHIOCONAZOLE
PROTIOKONAZOL	PROTIOKONAZOL

---

## C233CP1: CODED VARIABLE - amount of ai1

Data file: seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 25 - 60 Format: Numeric

---

## C233CU1: CODED VARIABLE - unit (% or Gr)

Data file: seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
g/l	g/l

---

## C233CA2: CODED VARIABLE - active ingredient2

Data file: seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
CLOTHIANIDINE	CLOTHIANIDINE
TRITICONAZOLE	TRITICONAZOLE

## C233CP2: CODED VARIABLE - amount of ai2

**Data file:** seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 20 - 250 Format: Numeric

## Q233C\_D: Q233C. d. PRODUCT 1: Dosage

**Data file:** seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 1 Format: Numeric

### Questions and instructions

#### CATEGORIES

Value	Category
1	2

## Q233C\_E: Q233C. e. PRODUCT 1: Unit of quantity

**Data file:** seed\_treatment

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
ML/KG	ML/KG

## Q233C\_G: Q233C. g. PRODUCT 1: Pest/disease/ weed targeted

**Data file:** seed\_treatment

## Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
Don't know / no answer	Don't know / no answer

---

## SYNGENTA: CODED VARIABLE Syngenta product? (1 = YES; 0 = NO)

Data file: seed\_treatment

## Overview

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

## Questions and instructions

---

### CATEGORIES

Value	Category
1	Yes
2	No

---

## **HARVESTYEAR: Data collection wave**

**Data file:** Farm\_level\_data

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 2014 - 2017 Format: Numeric

---

## **REGION: Syngenta's definition of Region**

**Data file:** Farm\_level\_data

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### **Questions and instructions**

---

#### CATEGORIES

Value	Category
eame	eame

---

## **TERRITORY: Syngenta's definition of Territory**

**Data file:** Farm\_level\_data

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### **Questions and instructions**

---

#### CATEGORIES

Value	Category
europe north	europe north

---

## **GROWINGAREA: To which field/plot does the information relate to?**

**Data file:** Farm\_level\_data

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
A	A
B	B

---

### CLUSTERID: Unique cluster ID

**Data file:** Farm\_level\_data

#### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
unitedkingdombarley1	unitedkingdombarley1

---

### COUNTRY: Country

**Data file:** Farm\_level\_data

#### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
United Kingdom Of Great Britain And Northern Ireland	United Kingdom Of Great Britain And Northern Ireland

---

### FARMTYPE: Farm type

**Data file:** Farm\_level\_data

#### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
bf	bf
rf	rf

---

## GROWERID: Unique respondent ID

Data file: Farm\_level\_data

### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
451002	451002
451003	451003
451005	451005
451008	451008
451011	451011
451013	451013
451016	451016
451018	451018
451024	451024
451025	451025
451027	451027
451028	451028
451030	451030
451031	451031
451033	451033
451034	451034
451035	451035
451037	451037
451038	451038
451039	451039
451040	451040

451041	451041
451042	451042
451043	451043
451044	451044
451045	451045
451046	451046
451047	451047
451048	451048
451049	451049
451050	451050
451051	451051
451052	451052
451053	451053
451054	451054
451055	451055
451056	451056
451057	451057
451058	451058
451059	451059
451060	451060
451061	451061
451062	451062
452002	452002
452003	452003
452005	452005
452008	452008
452011	452011
452013	452013
452016	452016
452018	452018
452024	452024
452025	452025
452027	452027
452028	452028
452030	452030
452031	452031
452033	452033
452034	452034
452035	452035

452037	452037
452038	452038
452039	452039
452040	452040
452041	452041
452042	452042
452043	452043
452044	452044
452045	452045
452046	452046
452047	452047
452048	452048
452049	452049
452050	452050
452051	452051
452052	452052
452053	452053
452054	452054
452055	452055
452056	452056
452057	452057
452058	452058
452059	452059
452060	452060
452061	452061
452062	452062

## CROP: The crop of focus

Data file: Farm\_level\_data

### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
barley	barley

**AREASIZE: Q57. Size of growing area A for in****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0  
Type: Continuous Decimal: 0 Width: 10 Range: 3 - 25.87 Format: Numeric

**CROPSIZE: Q5.Total cultivated area of in this season in****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0  
Type: Continuous Decimal: 0 Width: 10 Range: 9.74 - 51.04 Format: Numeric

**LANDPRODUCTIVITY: Land efficiency in ton/ha****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0  
Type: Continuous Decimal: 0 Width: 10 Range: 5.79 - 13.5 Format: Numeric

**PESTICIDEAPPLICATIONEFFICIENCY: Number of field applications used per ton produced****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0  
Type: Continuous Decimal: 0 Width: 10 Range: 0 - 1.24223602484472 Format: Numeric

**NUTRIENTEFFICIENCY: Kgs of nitrogen used per ton produced****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0  
Type: Continuous Decimal: 0 Width: 10 Range: 0 - 39.5252525252525 Format: Numeric

**PHOSPHORUSEFFICIENCY: Kgs of phosphorus used per ton produced****Data file:** Farm\_level\_data

## Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 0 - 4.62190812720848 Format: Numeric

---

### **POTASSIUMEFFICIENCY: Kgs of potassium used per ton produced**

**Data file:** Farm\_level\_data

## Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 0 - 12.1167883211679 Format: Numeric

---

### **SEEDEFFICIENCY: Kgs of seeds used per ton produced**

**Data file:** Farm\_level\_data

## Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 3.91659716430359 - 30.8571428571429 Format: Numeric

---

### **PESTICIDEEFFICIENCY: Kgs of active ingredients from pesticides used in kilogram per ton produced**

**Data file:** Farm\_level\_data

## Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0.987329545454545 Format: Numeric

---

### **HERBICIDEEFFICIENCY: Kgs of active ingredients from herbicides used per ton produced**

**Data file:** Farm\_level\_data

## Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0.827414772727273 Format: Numeric

---

### **FUNGICIDEEFFICIENCY: Kgs of active ingredients from fungicides used per ton produced**

**Data file:** Farm\_level\_data

## Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0.255 Format: Numeric

---

**INSECTICIDE EFFICIENCY: Kgs of active ingredients from insecticides used per ton produced****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0.0078544061302682 Format: Numeric

**IRRIGATION WATER EFFICIENCY: Litres of irrigation water used per ton produced****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0 Format: Numeric

**SYNGENTA SHARE: Percentage of syngenta products used compared to total number of products used****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 0 - 100 Format: Numeric

**USER\_VS\_NON\_USER: Does the grower use Syngenta products?****Data file:** Farm\_level\_data**Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 12 Range: 1 - 3 Format: Numeric

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
1	non-user
2	exclusive user
3	mixed user

**TERRITORY: Syngenta definition of territory (sub-region)****Data file:** Global\_farm\_data**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
europe north	europe north

**COUNTRY: Country****Data file:** Global\_farm\_data**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
United Kingdom Of Great Britain And Northern Ireland	United Kingdom Of Great Britain And Northern Ireland

**CLUSTERID: Unique cluster ID****Data file:** Global\_farm\_data**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
unitedkingdombarley1	unitedkingdombarley1

**GROWERID: Unique respondent ID****Data file:** Global\_farm\_data

## Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

<b>Value</b>	<b>Category</b>
451005	451005
451008	451008
451011	451011
451013	451013
451024	451024
451025	451025
451027	451027
451028	451028
451030	451030
451033	451033
451034	451034
451038	451038
451040	451040
451041	451041
451042	451042
451043	451043
451044	451044
451045	451045
451046	451046
451047	451047
451048	451048
451049	451049
451050	451050
451051	451051
451052	451052
451053	451053
451054	451054
451055	451055
451056	451056
451057	451057
451058	451058
451059	451059

451060	451060
451061	451061
451062	451062
452005	452005
452008	452008
452011	452011
452013	452013
452024	452024
452025	452025
452027	452027
452028	452028
452030	452030
452033	452033
452034	452034
452038	452038
452040	452040
452041	452041
452042	452042
452043	452043
452044	452044
452045	452045
452046	452046
452047	452047
452048	452048
452049	452049
452050	452050
452051	452051
452052	452052
452053	452053
452054	452054
452055	452055
452056	452056
452057	452057
452058	452058
452059	452059
452060	452060
452061	452061
452062	452062

## GROWINGAREA: To which field/plot does the information relate to?

**Data file:** Global\_farm\_data

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
a	a
b	b

## FARMTYPE: Farmtype

**Data file:** Global\_farm\_data

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
bf	bf
rf	rf

## CROP: Crop of focus

**Data file:** Global\_farm\_data

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
barley	barley

**Q19: Q19. Surname****Data file:** Global\_farm\_data**Overview**

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
confidential	confidential

**Q20: Q20. First name****Data file:** Global\_farm\_data**Overview**

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
confidential	confidential

**Q73: Q73. KGs/HECT of seeds sown for growing area A for****Data file:** Global\_farm\_data**Overview**

Valid: 0    Invalid: 0  
 Type: Continuous    Decimal: 0    Width: 10    Range: 46.96 - 200    Format: Numeric

**Q231B: Q231B. Are your seeds coated with crop protection products?****Data file:** Global\_farm\_data**Overview**

Valid: 0    Invalid: 0  
 Type: Discrete    Decimal: 0    Width: 12    Range: 1 - 1    Format: Numeric

## Questions and instructions

---

### CATEGORIES

Value	Category
1	yes

---

## Q224: Q224. Do you apply organic fertilizers for ?

Data file: Global\_farm\_data

### Overview

Valid: 0 Invalid: 0  
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 1 Format: Numeric

## Questions and instructions

---

### CATEGORIES

Value	Category
1	no

---

## Q226: Q226. Do you apply chemical fertilizers for ?

Data file: Global\_farm\_data

### Overview

Valid: 0 Invalid: 0  
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

## Questions and instructions

---

### CATEGORIES

Value	Category
1	yes
2	no

---

## Q229B1: Q229B1.Total number of applications you perform with chemical fertilizers on growing area for ?

Data file: Global\_farm\_data

### Overview

Valid: 0 Invalid: 0  
Type: Continuous Decimal: 0 Width: 10 Range: 3 - 12 Format: Numeric

**Q240D: Q240D. Note down the total number of treatments you perform with crop protection products**

**Data file:** Global\_farm\_data

**Overview**

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 0 - 11 Format: Numeric

**Q244: Q244. Marketable yield that has been achieved for growing area A for in per ?**

**Data file:** Global\_farm\_data

**Overview**

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 6.21 - 13.5 Format: Numeric

**Q389: Q389. What is the MAIN water source of during this season?**

**Data file:** Global\_farm\_data

**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 1 Format: Numeric

**Questions and instructions**

CATEGORIES

Value	Category
1	rain-fed (no equipment, only natural rainfall)

**HARVESTYEAR: Data collection wave**

**Data file:** Global\_farm\_data

**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 2015 - 2017 Format: Numeric

**HARVESTYEAR: Data collection wave****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 2015 - 2017 Format: Numeric

---

**GROWINGAREA: To which field/plot does the information relate to?****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
A	A
B	B

---

**CLUSTERID: Unique cluster ID****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
UnitedKingdomBarley1	UnitedKingdomBarley1

---

**COUNTRY: Country****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
United Kingdom Of Great Britain And Northern Ireland	United Kingdom Of Great Britain And Northern Ireland

---

## FARMTYPE: FARMTYPE

Data file: Crop\_protection

### Overview

Valid: 0 Invalid: 0  
Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
BF	BF
RF	RF

---

## GROWERID: Unique respondent ID

Data file: Crop\_protection

### Overview

Valid: 0 Invalid: 0  
Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
451005	451005
451008	451008
451011	451011
451013	451013
451024	451024
451025	451025
451027	451027
451028	451028
451030	451030

451033	451033
451034	451034
451038	451038
451040	451040
451041	451041
451042	451042
451043	451043
451044	451044
451045	451045
451047	451047
451048	451048
451049	451049
451050	451050
451051	451051
451052	451052
451053	451053
451054	451054
451055	451055
451056	451056
451057	451057
451058	451058
451059	451059
451060	451060
451061	451061
451062	451062
452005	452005
452008	452008
452011	452011
452013	452013
452024	452024
452025	452025
452027	452027
452028	452028
452030	452030
452033	452033
452034	452034
452038	452038
452040	452040
452041	452041

452042	452042
452043	452043
452044	452044
452045	452045
452047	452047
452048	452048
452049	452049
452050	452050
452051	452051
452052	452052
452053	452053
452054	452054
452055	452055
452056	452056
452057	452057
452058	452058
452059	452059
452060	452060
452061	452061
452062	452062

## ■ PRODUCT: Unique code of a product within application

**Data file:** Crop\_protection

### Overview

Valid: 0    Invalid: 0

Type: Discrete    Width: 12    Range: -    Format: character

### Questions and instructions

#### CATEGORIES

Value	Category
1	1
2	2
3	3
4	4
5	5
6	6

## CROP: The crop of focus

**Data file:** Crop\_protection

### Overview

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

### Questions and instructions

---

CATEGORIES

Value	Category
Barley	Barley

---

## APPLICATION: Unique code of an application per field per grower

**Data file:** Crop\_protection

### Overview

Valid: 0    Invalid: 0  
 Type: Discrete    Width: 12    Range: -    Format: character

### Questions and instructions

---

CATEGORIES

Value	Category
1	1
10	10
11	11
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

---

## Q241A: Q241 a. Timing of product application

**Data file:** Crop\_protection

### Overview

Valid: 0    Invalid: 0

Type: Discrete    Width: 12    Range: -    Format: character

## Questions and instructions

---

### CATEGORIES

<b>Value</b>	<b>Category</b>
2014-04-07	2014-04-07
2014-09-05	2014-09-05
2014-09-12	2014-09-12
2014-09-13	2014-09-13
2014-09-14	2014-09-14
2014-09-19	2014-09-19
2014-09-20	2014-09-20
2014-09-22	2014-09-22
2014-09-25	2014-09-25
2014-09-28	2014-09-28
2014-09-30	2014-09-30
2014-10-02	2014-10-02
2014-10-03	2014-10-03
2014-10-10	2014-10-10
2014-10-11	2014-10-11
2014-10-28	2014-10-28
2014-11-01	2014-11-01
2014-11-02	2014-11-02
2014-11-13	2014-11-13
2014-11-30	2014-11-30
2014-12-01	2014-12-01
2014-12-04	2014-12-04
2015-03-06	2015-03-06
2015-03-21	2015-03-21
2015-03-22	2015-03-22
2015-03-23	2015-03-23
2015-03-24	2015-03-24
2015-03-27	2015-03-27
2015-03-28	2015-03-28
2015-04-02	2015-04-02
2015-04-04	2015-04-04
2015-04-05	2015-04-05
2015-04-06	2015-04-06
2015-04-07	2015-04-07

2015-04-08	2015-04-08
2015-04-10	2015-04-10
2015-04-12	2015-04-12
2015-04-15	2015-04-15
2015-04-16	2015-04-16
2015-04-17	2015-04-17
2015-04-18	2015-04-18
2015-04-20	2015-04-20
2015-04-21	2015-04-21
2015-04-22	2015-04-22
2015-04-23	2015-04-23
2015-04-24	2015-04-24
2015-04-27	2015-04-27
2015-04-30	2015-04-30
2015-05-01	2015-05-01
2015-05-04	2015-05-04
2015-05-07	2015-05-07
2015-05-08	2015-05-08
2015-05-09	2015-05-09
2015-05-10	2015-05-10
2015-05-11	2015-05-11
2015-05-13	2015-05-13
2015-05-14	2015-05-14
2015-05-15	2015-05-15
2015-05-16	2015-05-16
2015-05-18	2015-05-18
2015-05-19	2015-05-19
2015-05-20	2015-05-20
2015-05-21	2015-05-21
2015-05-27	2015-05-27
2015-06-04	2015-06-04
2015-07-10	2015-07-10
2015-07-14	2015-07-14
2015-07-30	2015-07-30
2015-09-12	2015-09-12
2015-09-18	2015-09-18
2015-09-26	2015-09-26
2015-09-28	2015-09-28
2015-09-30	2015-09-30

2015-10-01	2015-10-01
2015-10-03	2015-10-03
2015-10-04	2015-10-04
2015-10-05	2015-10-05
2015-10-08	2015-10-08
2015-10-10	2015-10-10
2015-10-11	2015-10-11
2015-10-13	2015-10-13
2015-10-17	2015-10-17
2015-10-26	2015-10-26
2015-10-27	2015-10-27
2015-11-02	2015-11-02
2015-11-26	2015-11-26
2015-12-11	2015-12-11
2015-12-14	2015-12-14
2016-03-21	2016-03-21
2016-03-22	2016-03-22
2016-03-24	2016-03-24
2016-03-25	2016-03-25
2016-03-31	2016-03-31
2016-04-01	2016-04-01
2016-04-05	2016-04-05
2016-04-08	2016-04-08
2016-04-09	2016-04-09
2016-04-11	2016-04-11
2016-04-18	2016-04-18
2016-04-19	2016-04-19
2016-04-20	2016-04-20
2016-04-22	2016-04-22
2016-04-27	2016-04-27
2016-04-30	2016-04-30
2016-05-01	2016-05-01
2016-05-04	2016-05-04
2016-05-06	2016-05-06
2016-05-08	2016-05-08
2016-05-09	2016-05-09
2016-05-11	2016-05-11
2016-05-13	2016-05-13
2016-05-14	2016-05-14

2016-05-16	2016-05-16
2016-05-19	2016-05-19
2016-05-22	2016-05-22
2016-05-24	2016-05-24
2016-05-25	2016-05-25
2016-05-27	2016-05-27
2016-05-28	2016-05-28
2016-06-16	2016-06-16
2016-06-17	2016-06-17
2016-07-04	2016-07-04
2016-07-14	2016-07-14
2016-07-18	2016-07-18
2016-07-21	2016-07-21
2016-07-26	2016-07-26
2016-07-28	2016-07-28
2016-08-30	2016-08-30
2016-09-21	2016-09-21
2016-09-26	2016-09-26
2016-09-27	2016-09-27
2016-09-28	2016-09-28
2016-09-29	2016-09-29
2016-09-30	2016-09-30
2016-10-01	2016-10-01
2016-10-02	2016-10-02
2016-10-03	2016-10-03
2016-10-04	2016-10-04
2016-10-05	2016-10-05
2016-10-06	2016-10-06
2016-10-07	2016-10-07
2016-10-08	2016-10-08
2016-10-09	2016-10-09
2016-10-10	2016-10-10
2016-10-11	2016-10-11
2016-10-12	2016-10-12
2016-10-14	2016-10-14
2016-10-17	2016-10-17
2016-10-20	2016-10-20
2016-10-21	2016-10-21
2016-10-23	2016-10-23

2016-10-27	2016-10-27
2016-10-31	2016-10-31
2016-11-02	2016-11-02
2016-11-03	2016-11-03
2016-11-06	2016-11-06
2016-11-14	2016-11-14
2016-11-16	2016-11-16
2016-11-19	2016-11-19
2017-02-16	2017-02-16
2017-02-24	2017-02-24
2017-03-07	2017-03-07
2017-03-09	2017-03-09
2017-03-13	2017-03-13
2017-03-17	2017-03-17
2017-03-21	2017-03-21
2017-03-24	2017-03-24
2017-03-25	2017-03-25
2017-03-26	2017-03-26
2017-03-27	2017-03-27
2017-03-28	2017-03-28
2017-03-29	2017-03-29
2017-03-30	2017-03-30
2017-03-31	2017-03-31
2017-04-03	2017-04-03
2017-04-06	2017-04-06
2017-04-07	2017-04-07
2017-04-08	2017-04-08
2017-04-10	2017-04-10
2017-04-11	2017-04-11
2017-04-12	2017-04-12
2017-04-13	2017-04-13
2017-04-14	2017-04-14
2017-04-16	2017-04-16
2017-04-18	2017-04-18
2017-04-20	2017-04-20
2017-04-22	2017-04-22
2017-04-23	2017-04-23
2017-04-28	2017-04-28
2017-04-29	2017-04-29

2017-05-02	2017-05-02
2017-05-03	2017-05-03
2017-05-08	2017-05-08
2017-05-09	2017-05-09
2017-05-10	2017-05-10
2017-05-11	2017-05-11
2017-05-17	2017-05-17
2017-05-18	2017-05-18
2017-05-19	2017-05-19
2017-05-20	2017-05-20
2017-05-22	2017-05-22
2017-05-23	2017-05-23
2017-05-24	2017-05-24
2017-06-30	2017-06-30
2017-07-05	2017-07-05
2017-07-08	2017-07-08
2017-07-22	2017-07-22

## C241CP3: CODED VARIABLE - amount of ai3

Data file: Crop\_protection

### Overview

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 75 - 100 Format: Numeric

## Q241B: Q241 b.Type of product

Data file: Crop\_protection

### Overview

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 12 Range: 1 - 5 Format: Numeric

### Questions and instructions

#### CATEGORIES

Value	Category
1	Herbicide
2	Insecticide
3	Fungicide
4	Plant growth regulator, harvest aids,adjuvants

5	Nematicides, molluscicides
---	----------------------------

### Q241C: Q241 c . Brand product name

Data file: Crop\_protection

#### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

#### Questions and instructions

##### CATEGORIES

Value	Category
confidential	confidential

### C241C: CODED VARIABLE - stringcode

Data file: Crop\_protection

#### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

#### Questions and instructions

##### CATEGORIES

Value	Category
confidential	confidential

### C241CA1: CODED VARIABLE - active ingredient1

Data file: Crop\_protection

#### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

#### Questions and instructions

##### CATEGORIES

Value	Category
2-CHLOROETHYLPHOSPHONIC ACID	2-CHLOROETHYLPHOSPHONIC ACID
AZOXYSTROBIN	AZOXYSTROBIN

BENZOVINDIFLUPYR	BENZOVINDIFLUPYR
BIXAFEN	BIXAFEN
BROMOXYNIL	BROMOXYNIL
CHLORMEQUAT	CHLORMEQUAT
CHLORMEQUAT-CHLORIDE	CHLORMEQUAT-CHLORIDE
CHLOROTHALONIL	CHLOROTHALONIL
CLOQUINTOCET-MEXYL	CLOQUINTOCET-MEXYL
CYPERMETHRIN	CYPERMETHRIN
CYPRODINIL	CYPRODINIL
DIFLUFENIKAN	DIFLUFENIKAN
Do not know	Do not know
EPOXYCONAZOLE	EPOXYCONAZOLE
ETHEFON	ETHEFON
ETHOXYLATED-TRIDECYL-ALCOHOL	ETHOXYLATED-TRIDECYL-ALCOHOL
FENOXAPROP-P-ETHYL	FENOXAPROP-P-ETHYL
FENPROPIMORF	FENPROPIMORF
FERRIC FOSPHATE	FERRIC FOSPHATE
FLorasulam	FLorasulam
FLUFENACET	FLUFENACET
FLUOXASTROBIN	FLUOXASTROBIN
FLUPYRSULFURON-M	FLUPYRSULFURON-M
FLUROXYPYR	FLUROXYPYR
FOLPET	FOLPET
GLYPHOSATE	GLYPHOSATE
HALOSULFURON-METHYL	HALOSULFURON-METHYL
ISOPYRAZAM	ISOPYRAZAM
LAMBDA CYHALOTHrin	LAMBDA CYHALOTHrin
MCPA	MCPA
MCPP	MCPP
MECOPROP	MECOPROP
MEKOPROP-P	MEKOPROP-P
MEPIQUAT-KLORID	MEPIQUAT-KLORID
METALDEHYDE	METALDEHYDE
METHYLATED RAPESEED OIL	METHYLATED RAPESEED OIL
METSULFURON-METHYL	METSULFURON-METHYL
NORFLURAZON	NORFLURAZON
PARAQUAT DICHLORIDE	PARAQUAT DICHLORIDE
PENDIMETHALIN	PENDIMETHALIN
PICOLINAFEN	PICOLINAFEN

PINOXADEN	PINOXADEN
PROSULFOCARB	PROSULFOCARB
PROTHIOCONAZOLE?	PROTHIOCONAZOLE
PROTIOKONAZOL	PROTIOKONAZOL
SPINETORAM	SPINETORAM
SPIROXAMINE	SPIROXAMINE
THIPHENSULPHURONE-METHYL	THIPHENSULPHURONE-METHYL
TRIALLATE	TRIALLATE
TRINEXAPAC-E,	TRINEXAPAC-E,

## C241CP1: CODED VARIABLE - amount of ai1

Data file: Crop\_protection

### Overview

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 2.5 - 800 Format: Numeric

## C241CU1: CODED VARIABLE - unit (% or Gr)

Data file: Crop\_protection

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

### Questions and instructions

#### CATEGORIES

Value	Category
1	g/l
2	percent

## C241CA2: CODED VARIABLE - active ingredient2

Data file: Crop\_protection

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

## CATEGORIES

Value	Category
CHLORMEQUAT	CHLORMEQUAT
CHLOROTHALONIL	CHLOROTHALONIL
CLOQUINTOCET	CLOQUINTOCET
CLOQUINTOCET-MEXYL	CLOQUINTOCET-MEXYL
DICAMBA-SODIUM/POTASSIUM SALT	DICAMBA-SODIUM/POTASSIUM SALT
DIFLUFENIKAN	DIFLUFENIKAN
Do not know	Do not know
ETHEFON	ETHEFON
FATTY ACIDS	FATTY ACIDS
FENPROPIMORF	FENPROPIMORF
FLORASULAM	FLORASULAM
FLUFENACET	FLUFENACET
FLUROXYPYR	FLUROXYPYR
IOXYNIL	IOXYNIL
ISOPYRAZAM	ISOPYRAZAM
PENDIMETHALIN	PENDIMETHALIN
PICOLINAFEN	PICOLINAFEN
PINOXADEN	PINOXADEN
PROHEXADIONE-CALCIUM	PROHEXADIONE-CALCIUM
PROQUINAZID	PROQUINAZID
PROTHIOCONAZOLE?	PROTHIOCONAZOLE
PROTIOKONAZOL	PROTIOKONAZOL
PYRACLOSTROBINE	PYRACLOSTROBINE
SPIROXAMINE	SPIROXAMINE
SPYROXAMINE	SPYROXAMINE
TEBUCONAZOLE	TEBUCONAZOLE
THIPHENSULPHURONE-METHYL	THIPHENSULPHURONE-METHYL
TRIBUNERONE-METHYL	TRIBUNERONE-METHYL
TRIFLOXYSTROBINE	TRIFLOXYSTROBINE

**C241CP2: CODED VARIABLE - amount of ai2****Data file: Crop\_protection****Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 6 - 441 Format: Numeric

**C241CA3: CODED VARIABLE - active ingredient3****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
TRIFLOXYSTROBINE	TRIFLOXYSTROBINE

**C241CPT: CODED VARIABLE - total amount of ai****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 2.5 - 801 Format: Numeric

**Q241D: CODED VARIABLE Q241 d. Dosage ?****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 3 - 15550 Format: Numeric

**Q241E: CODED VARIABLE Q241 e. Unit of quantity****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
1	MILLILITER/HECT
2	GRAM/HECT

**Q241G: Q241 g. Pest/disease/ weed targeted ?****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
don't know	don't know
don't know ; no answer	don't know ; no answer

**Q241I: Q241 i. Percentage of the area treated against pests/ diseases/ weeds****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 4.68 - 100 Format: Numeric

**Q241J: Q241 j. Percentage of crop free of pests/ diseases/ weeds at harvest (in %)****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 100 - 100 Format: Numeric

**SYNGENTA: CODED VARIABLE Syngenta product? (1 = YES; 0 = NO)****Data file:** Crop\_protection**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
1	No
2	Yes



**HARVESTYEAR: Year in which the data was collected****Data file:** Location**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 2015 - 2017 Format: Numeric

---

**COUNTRY: Country****Data file:** Location**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
United Kingdom Of Great Britain And Northern Ireland	United Kingdom Of Great Britain And Northern Ireland

---

**CLUSTERID: Unique identifier per cluster****Data file:** Location**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions****CATEGORIES**

<b>Value</b>	<b>Category</b>
UnitedKingdomBarley1	UnitedKingdomBarley1

---

**GROWERID: Unique identifier per grower****Data file:** Location**Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 451005 - 452062 Format: Numeric

---

## GROWINGAREA: Field code (A or B)

**Data file:** Location

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

---

#### CATEGORIES

Value	Category
A	A
B	B

---

## CORNER: Multiple corners of same field can be registered (only from 2018 onwards)

**Data file:** Location

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

---

#### CATEGORIES

Value	Category
One gps location of each growingarea	One gps location of each growingarea

---

## Q22D\_LAT\_DEG: Latititude degrees

**Data file:** Location

### Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

---

#### CATEGORIES

Value	Category
confidential	confidential

---

## **Q22D\_LAT\_MIN: Latitude minutes**

**Data file:** Location

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### **Questions and instructions**

---

#### CATEGORIES

Value	Category
confidential	confidential

---

## **Q22D\_LAT\_SEC: Latitude seconds**

**Data file:** Location

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### **Questions and instructions**

---

#### CATEGORIES

Value	Category
confidential	confidential

---

## **Q22D\_LON\_DEG: Longitude degrees**

**Data file:** Location

### **Overview**

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

### **Questions and instructions**

---

#### CATEGORIES

Value	Category
confidential	confidential

---

## **Q22D\_LON\_MIN: Longitude minutes**

**Data file:** Location

## Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
confidential	confidential

---

## Q22D\_LON\_SEC: Longitude seconds

**Data file:** Location

## Overview

Valid: 0 Invalid: 0  
 Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

---

### CATEGORIES

Value	Category
confidential	confidential

---

## Q151: Q151. Open field or in a greenhouse?

**Data file:** Location

## Overview

Valid: 0 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 1 Format: Numeric

## Questions and instructions

---

### CATEGORIES

Value	Category
1	Open field

---

## ADMIN\_LEVEL\_1: administrative area 1

**Data file:** Location

## Overview

Valid: 0 Invalid: 0

Type: Discrete    Width: 12    Range: -    Format: character

## Questions and instructions

---

### CATEGORIES

<b>Value</b>	<b>Category</b>
Aberdeenshire	Aberdeenshire
Angus	Angus
Cambridgeshire	Cambridgeshire
Dorset	Dorset
East Lothian	East Lothian
England	England
Gloucestershire	Gloucestershire
Kent	Kent
Leicester	Leicester
Lincolnshire	Lincolnshire
Louth	Louth
Oxfordshire	Oxfordshire
South West England	South West England
Suffolk	Suffolk
Wales	Wales
Yorkshire	Yorkshire
northeastern England	northeastern England

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# study\_resources

## questionnaires

### 2015 GGP Questionnaire Master

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title 2015 GGP Questionnaire Master  
language English  
filename 2015 GGP Questionnaire Master.pdf

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### 2016 GGP Questionnaire Master

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title 2016 GGP Questionnaire Master  
language English  
filename 2016 GGP Questionnaire Master.pdf

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### 2017 GGP Questionnaire Master

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title 2017 GGP Questionnaire Master  
language English  
filename 2017 GGP Questionnaire Master.pdf

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## reports

### Enabling a set change in farm efficiency (productivity brochure)

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title Enabling a set change in farm efficiency (productivity brochure)  
language English  
filename SYT-GGP-c1productivity-brochure.pdf

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### The Good Growth Plan Progress Data - Productivity 2019

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title The Good Growth Plan Progress Data - Productivity 2019  
language English  
filename SYT-GGP-c1productivity-description-2019\_0.pdf

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