



Farm Return Data Definitions for FLINT

Accounting year 2015

Based on 7th Framework Programme for Research FLINT project
(Farm Level Indicators for New Topics on policy evaluation) (RICC 1720)

July 2015

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OBJECTIVES AND APPROACH

Given the continual evolution of the CAP and the current reform that is on-going, it is now both timely and relevant to take stock of current evaluation practices and specifically focus on which indicators that are or can be employed to aid our understanding of the relative success of policy targeting. This is the means by which “to obtain an in-depth picture of the impact of the CAP at farm level”, in order “to better align the [CAP post-2013] policy to the objectives and targets of the Europe 2020 Framework”. It is in this perspective that the FP7 KBBE.2013.1.4-12 project (Farm Level Indicators for New Topics, FLINT) on policy evaluation is placed, concerning ‘Support to agricultural policy – Establishing and testing farm-level indicators’.

FLINT will provide an updated data-infrastructure needed by the agro-food sector and policy makers to provide up to date information on farm level indicators on sustainability and other new relevant issues. Better decision making will be facilitated by taking into account the sustainability performance of farms on a wide range of relevant topics, such as (1) market stabilization; (2) income support; (3) environmental sustainability; (4) climate change adaptation and mitigation; (5) innovation; and (6) resource efficiency. The approach will explicitly consider the heterogeneity of the farming sector in the EU and its member states. Together with the farming and agro-food sector the feasibility of these indicators will be determined.

FLINT will take into account the increasing needs for sustainability information by the national and international retail and agro-food sector. The FLINT approach is supported by the Sustainable Agriculture Initiative Platform and the Sustainability Consortium in which the agro-food sector actively participates. FLINT will establish a pilot network of at least 1000 farms (representative of farm diversity at EU level, including the different administrative environments in the different MS) that is well suited for the gathering of these data.

The lessons learned and recommendations from the empirical research conducted in 9 purposefully chosen MS will be used for estimating and discussing effects in all 28 MS. This will be very useful if the European Commission should decide to upgrade the pilot network to an operational EU-wide system.

GENERAL DEFINITIONS AND INSTRUCTIONS

The general rules for the recording of data for the FLINT questionnaire is the same as the rules of data recording in the FADN Farm Return.

1. The data should relate to a single agricultural holding and to a single accounting year of 12 consecutive months. For the pilot data collection the accounting year is 2015.
2. Data in the farm return concern exclusively the agricultural holding. These data refer to the agricultural activities of the holding and to the other gainful activities directly related to the holding. Except these activities, nothing connected with any non-farming activities of the holder or of his family, or with any pension, inheritance, private bank accounts, property external to the agricultural holding, personal taxation, private insurance, etc., is to be taken into account in preparing the farm returns.
3. Data given in a farm return are to be taken from accounts consisting of entries made systematically and regularly throughout the accounting year.
4. All data relating to the 'profit and loss account' should correspond to the production in the accounting year. Costs recorded are those used in the year's production, even if the inputs were not purchased during the accounting year.
5. Values are to be expressed not including VAT.
6. Values are to be expressed without taking into account grants and subsidies (see ► FADN Farm Return table M). Grants and subsidies include all forms of direct aid from public funds which have resulted in a specific receipt.
8. Financial values: in euro or national currency

Table Z1 : Information and Knowledge

		Columns	
		Value Type	Quantity
Code	Category	VT	Q
AS	Advisory Services		
1011	Consultancy of Public Advisor	Z1_AS_1011_VT	Z1_AS_1011_Q
1012	Consultancy of Farmers' cooperative	Z1_AS_1012_VT	Z1_AS_1012_Q
1016	Consultancy of Other farmer based providers	Z1_AS_1016_VT	Z1_AS_1016_Q
1013	Consultancy of Private Advisor	Z1_AS_1013_VT	Z1_AS_1013_Q
1014	Consultancy of Companies	Z1_AS_1014_VT	Z1_AS_1014_Q
1015	Consultancy of Others	Z1_AS_1015_VT	Z1_AS_1015_Q
CI	CAP and Cross Compliance		
2010	Information Sources	Z1_CI_2010_VT	
ET	Education and Training		
3010	Manager Training	Z1_ET_3010_VT	
3020	Employee Training	Z1_ET_3020_VT	Z1_ET_3020_Q
OS	Ownership		
4010	Financial involvement		Z1_OS_4010_Q
MG	Management		
5010	Technology Use	Z1_MG_5010_VT	
SE	Social Engagement		
6011	Involvement as Member	Z1_SE_6011_VT	
6012	Involvement as Member of a Board	Z1_SE_6012_VT	
6020	Local Participation	Z1_SE_6020_VT	

Description of columns:

VT	Value Type – allowed values for a category e.g public advisor could provide advisory services for bookkeeping, production etcetera
Q	Quantity, in numbers

Description of categories:

Category	Column	Notes
Group of information AS - Advisory Services		
Consultancy Cat. 1011 to 1016	<i>Type of Advice</i> Z1_AS *_VT	<p>Public Advisor (1011): It includes all public advisory services or public extension agents offering direct advice services to the farmers: e.g. advisory centre, chambers of agriculture, agricultural authorities, state-owned advisory firms, public research institutes.</p> <p>Farmers' Cooperative (1012): It includes farmers' cooperatives or its organizations which offer direct advisory services to the farm.</p> <p>Other Farmer based providers (1016): It includes all member-owned organizations -excluding farmers' cooperatives- which offer direct advisory services to the farm: e.g. farmers' associations, farmers' unions, farmers' groups.</p> <p>Private Advisor (1013): It includes all independent private consultants or consultancy firms e.g. accountancy firms, veterinary, experts, private advisory companies.</p> <p>Companies (1014): It includes all companies downstream and upstream along the value chain which principal business is not the provision of advisory services: input traders, processors, wholesalers (example: input shops, bank officers, buyers).</p> <p>Others (1015): Includes all the providers not covered on the previous categories: universities, environmental NGOs, private research institutes, religious organizations.</p> <p>Allowed values for value type (column VT), multiple selections are allowed:</p> <p>1 = Accountancy, bookkeeping, taxes: includes advisory service for bookkeeping; accountancy, taxes, FADN.</p> <p>2 = Management, business planning, and marketing: includes advisory services for planning, monitoring or executing plans. It includes: business/financial/marketing planning, human resources, management, marketing advice, marketing information service.</p> <p>3 = Crop production: it includes advisory service with the aim to solve problems and implement solutions of all the categories of crops contemplated in Table I (Crops)</p> <p>4 = Livestock production: it includes advisory services with the aim to solve problems/ implement solutions of all the categories of livestock described on Table J (Livestock production)</p> <p>5 = Animal products and services: it includes advisory services with the aim to solve problems/ implement solutions of all the categories on Table K (Animal products and services)</p> <p>6 = Other gainful activities directly related to the farm: it includes advisory services with the aim to solve problems/ implement solutions of all the categories on Table L (Other gainful activities and service)</p> <p>7 = Investments: it includes advisory services with the aim to solve problems/ implement solutions in a determined investment, such as contemplated in table D. Assets 2010 3010 3020 3030 4010 5010 7010 7020 8010</p> <p>8 = Other: other type of advisory service provided to the farm</p>
	<i>Number of contacts</i> Z1_AS *_Q	<p>The number of times of contact is the sum of total personal contact with the advisor by type during the given accounting year. It includes: individual advice on the farm or outside the farm; group advice on the farm or outside the farm; telephone calls; e-based advisory service; emails. It excludes: non personal contact such as provision of</p>

		information through mass media.
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Group of information CI - CAP and Cross Compliance		
Information Sources	<i>Type of Source</i> Z1_CI_2010_VT	<p>Codes referring to the main information sources about Common Agricultural Policies and Cross Compliance.</p> <p>Allowed values for value type (column VT), multiple selections are allowed:</p> <p>1=Farm advisor 2=Agriculture Department offices 3=Brochure, flyers 4=Internet 5=Journals 6=Other farmers 7=Seminars, meetings 8=TV, radio 9=Other</p>
Group of information ET – Education and Training		
Manager Training	<i>Number of Days</i> Z1_ET_3010_VT	<p>The question refers to person responsible for the day-to day management of the holding (For groups 10, 30 and 70 in Table C).</p> <p>Trainings are events from different duration which objective is to improve knowledge and skills at work in the farm, agricultural activities and other gainful activities directly related with the holding. It includes all organized educational events, with or without certificates: on the farm (modules organized internally) or off the farm events (seminars, courses, training days, excursions, conferences, presentations, educational programmes, organized exchanges, e-learning programs). It excludes: all non- organized educational activities such as self-education or non-organized on-job training. Days of training are calculating adding all the estimated days that the farmer/manager has used in order to attend a course. In the case of distance courses, the total number of days is dividing the sum of number of hours courses by 8.</p> <p>Codes to be used:</p> <p>0 = None 1 = ½ day or less 2 = 1-2 days 3 = 3-7 days 4 = More than 7 days</p>
Employees Training	<i>Number of Days</i> Z1_ET_3020_VT	<p>The question refers to person specified as 40, 50,60 in table C. Days of training are calculating adding all the estimated days that the labour have used in order to attend a course. In the case of distance courses, the total number of days is dividing the sum of number of hours courses by 8. Codes to be used:</p> <p>0 = None 1 = ½ day or less 2 = 1-2 days 3 = 3-7 days 4 = More than 7 days</p>
	<i>Number of persons involved in training</i> Z1_ET_3020_Q	Number of persons is the sum of total persons that assisted to at least one educational event during the year.
Group of information OS – Ownership		

Financial involvement	<i>Number of agricultural (related) businesses the farmer is involved in</i> Z1_OS_4010_Q	It means financially or entrepreneurial involvement in other agricultural companies. Partnerships and companies with agricultural activities and other gainful activities (according to Commission Regulation 1200/2009), dairy cooperatives, own cooperatives, biomass plants, marketing companies etcetera must be included. The farm work carried out by labour force to another agricultural holding is excluded.
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Group of information MG– Management		
Technology use	<i>Type of technology</i> Z1_MG_5010_VT	<p>The question refers to the usages of modern technologies for farm management purposes.</p> <p>Allowed values for value type (column VT), multiple selections are allowed:</p> <p>1 = Use Internet Farmer using the internet for accessing agricultural information and knowledge services: market prices, extension services, new markets, e-commerce, technical information, know-how etc.</p> <p>2 = Modern Technologies (GPS, Robotics) Computerized record-keeping systems, Geographical Information Systems (GIS), Global Positioning System (GPS), any other electronic systems to improve the quantity/quality/efficiency of the production.</p> <p>3 = Modern Management Tools Decision support systems and expert systems for monitoring, controlling, and improving any agricultural activities. Applying of any common standards for farm management practices (Global GAP, EurepGAP etc.) is also included.</p>
Group of information SE– Social Engagement		
Involvement <i>Cat. 6011 and 6012</i>	<i>Type of social involvement</i> Z1_SE_*_VT	<p>The question refers to person responsible for the day-to day management of the holding (For groups 10, 30 and 70 in Table C).</p> <p>Allowed values for value type (column VT), multiple selections are allowed:</p> <p>1 = Farmer's Union 2 = Professional Organisation, e.g. chamber of agriculture, technical institute, etc. 3 = (Local) farmers group mainly oriented at improving agriculture, e.g. groups aiming at testing new agricultural techniques, at elaborating collective agricultural development plan, etc. 4 = (Local) farmers group mainly oriented at nature conservation and landscape management, e.g. groups aiming at favouring hedgerow instalment on farmland, at promoting agricultural techniques suitable for biodiversity or wildlife conservation, etc. 5 = Environmental or nature association 6 = Hunting or Fishing association 7 = Civil association, e.g. village renewal, living in the area, school council, educational association, women's group, etc. 8 = Local/territorial/municipal government 9 = Other</p>
Local Participation	<i>Type of social diversification</i> Z1_SE_6020_VT	<p>The question refers to the social diversification of the farm in local communities. Is the farm actively connected the local community/environment by the given events (more than visiting)?</p> <p>Allowed values for value type (column VT), multiple selections are allowed:</p> <p>1 = Participation in local festivals 2 = Participation in local farmers' markets 3 = Participation in local farming fairs 4 = Participation in local nature conservation 5 = Participation in local competitions 6 = Hosting open day events in the farm, e.g. Harvest festival, themed seasonal events, etc. 7 = Allowing public visit in the farm, e.g. farm walks, trails or self-guided walks, etc. 8 = Giving apprenticeships</p>

		<p>9 = Other</p> <p>Concerning types 1-5, local is defined on LAU 1 level. If the festivals, markets, fairs, etc. are outside LAU 1 that is not considered as local.</p>
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Table Z2 : Working Conditions and Quality Of Life

Table Z2(1) - Working Conditions

Columns	GRP		WC - Working Conditions	CO – Continuity
	CAT		workload	farm duration
			1010	1050
	Holidays	NH	Z2_WC_1010_NH	
	Days of rest	W1	Z2_WC_1010_W1	
	Peak Season	PS	Z2_WC_1010_PS	
	Length	LP	Z2_WC_1010_LP	
	Average Hours	AH	Z2_WC_1010_AH	
	Illness	R1	Z2_WC_1010_R1	
	Other	R2	Z2_WC_1010_R2	
	Year	YB		Z2_CO_1050_YB
	Quit Farming	QF		Z2_CO_1050_QF
	Succession	SU		Z2_CO_1050_SU

Table Z2(2) – Quality of Life

		Columns			
		Satisfaction	Stress	Evolution	Farming attitude
Code	Category	SS	ST	EV	FA
QL	Quality of Life				
1021	Daily job tasks	Z2_QL_1021_SS			
1022	Work-life balance	Z2_QL_1022_SS			
1023	Being a farmer	Z2_QL_1023_SS			
1024	Quality of life	Z2_QL_1024_SS			
1025	Freedom of decision making	Z2_QL_1025_SS		Z2_QL_1025_EV	
1030	Job stress		Z2_QL_1030_ST	Z2_QL_1030_EV	
1040	Perception of farming				Z2_QL_1040_FA

Description of columns:

NH	Number of holiday days taken by the farmer
W1	Number of days off/days of rest per week
PS	Months considered as peak season on the farm in terms of workload
LP	Length of the peak season in number of days
AH	Average number of hours work on days during peak season
R1	Professional replacement in case of illness
R2	Professional replacement in cases of other than illness
YB	Starting year as the main decision maker on the specific farm
QF	Reason for giving up farming in the next five years
SU	Succession

SS	Work satisfaction score
ST	Current perceived level of stress
EV	Evolution in your perception
FA	Farming attitude

Description of categories:

Category	Column	Notes
Group of information WC – Working Conditions		
Workload	<i>Number of Holidays</i> Z2_WC_1010_NH	Number of holiday days taken by the farmer during the accounting year. The question refers to person responsible for the day-to day management of the holding (For groups 10, 30 and 70 in Table C). Holidays are considered full days break taken from work for rest, non-business related travel or recreation.
	<i>Number of days off/days of rest per week</i> Z2_WC_1010_W1	Number of days off/days of rest (a day on which somebody usually and regularly does not have to work) per week (including both non-farm paid work and farm work e.g. Saturday, Sundays, etc.)
	<i>Peak Season Months</i> Z2_WC_1010_PS	Months considered as peak season on the farm in terms of workload (when the workload is the highest). Allowed values are: 1 = January 2 = February 3 = March 4 = April 5 = May 6 = June 7 = July 8 = August 9 = September 10 = October 11 = November 12 = December Multiple selections are allowed.
	<i>Peak Season Length</i> Z2_WC_1010_LP	Sum of the number of days per peak season
	<i>Peak Season Average hours worked</i> Z2_WC_1010_AH	Number of hours worked on an average day during the peak season
	<i>Replacement during illness</i> Z2_WC_1010_R1	Replacement of the person responsible for the day-to day management of the holding (For groups 10, 30 and 70 in Table C). Availability of replacement in case of sickness. Allowed values are: 1 = Yes 2 = No 3 = Do not know
	<i>Replacement other than in case of illness</i> Z2_WC_1010_R2	Replacement of the person responsible for the day-to day management of the holding (For groups 10, 30 and 70 in Table C). Availability of replacement in case of leaving the work due to holidays, vocational trainings, etc. Allowed values are: 1 = Yes 2 = No 3 = Do not know

Group of information QL – Quality of Life		
Daily job tasks	<i>Satisfaction</i> Z2_QL_1021_SS	Evaluate subjectively the satisfaction with your daily job tasks (involve all the job as a whole) in a typical day. On a scale from 0 –very unsatisfied to 10- very satisfied.
Work-life balance	<i>Satisfaction</i> Z2_QL_1022_SS	Evaluate subjectively the satisfaction with your work-life balance. Satisfaction with the amount of time the interviewee has to do things that he/she likes doing. On a scale from 0 –very unsatisfied to 10- very satisfied.
Being a farmer	<i>Satisfaction</i> Z2_QL_1023_SS	Evaluates subjectively the satisfaction with being a farmer. Overall assessment, all in all, considering advantages and disadvantages. On a scale from 0 –very unsatisfied to 10- very satisfied.
Quality of life	<i>Satisfaction</i> Z2_QL_1024_SS	Evaluates subjectively the satisfaction with your quality of life. On a scale from 0 –very unsatisfied to 10- very satisfied.
Freedom of decision making	<i>Satisfaction</i> Z2_QL_1025_SS	Evaluates subjectively the satisfaction with your freedom of making decision. Overall assessment about the freedom from any external agent that the interviewee consider relevant (e.g. context, policies, buyers, banks, etc.). On a scale from 0 –very unsatisfied to 10- very satisfied.
	<i>Evolution</i> Z2_QL_1025_EV	The reflective judgement on the farmer's level of freedom to make decisions over your farm compared with five years ago. Allowed values are: 1 = Greatly declined 2 = Declined 3 = No change 4 = Increased 5 = Greatly increased
Stress	<i>Stress</i> Z2_QL_1030_ST	The question aims to capture information on current state of stress in their job, on a typical day, these days. Allowed values are 0 –free of stress to 10- very stressful
	<i>Evolution</i> Z2_QL_1030_EV	The reflective judgement on the farmer's level of stress compared with five years ago. Allowed values are: 1 = Greatly declined 2 = Declined 3 = No change 4 = Increased 5 = Greatly increased
Perception of farming	<i>Farming attitude</i> Z2_QL_1040_FA	Would the farmer like his children to farm. Allowed values are: 1 = Yes full time 2 = Yes part time 3 = No 4 = Do not know The objective of this question is to assess the overall perception of the interviewee with farming. The question is teoretical, no need to have a child.

Group of information CO– Continuity		
Farm duration	<i>Year</i> Z2_CO_1050_YB	Indicate in a 4 digit format the year in which the framer started as the main decision maker on this specific farm.
	<i>Quit farming</i> Z2_CO_1050_QF	Do you plan to give up the farm in the next 5 years. Allowed values : 1 = Give up for retirement 2 = Give up for other reason 3 = No plan to give up for the next 5 years 4 = Dont know
	<i>Succession</i> Z2_CO_1050_SU	Identify someone that can take over your farm. Select in the following list : 1 = Your husband/spouse or partner 2 = One or more of your children 3 = Somebody else from your family 4 = Somebody outside your family 5= Irrelevant (for e.g. the farmer is younger than 50 or the farm is a corporate farm) 6 = None "Family" shall refer to blood relatives of the interviewee up to third degree except husband/spouse and children, i.e. parents (1st degree), grandparents, grandson, granddaughter, brother or sister (2nd degree), great-grandparents, nephew, niece, uncle or aunt (3rd degree). By deduction, "outside your family" shall refer to any person, including more distant blood relatives (e.g. cousin), not elsewhere mentioned.

Table Z3: Innovation

		Columns			
		Innov. Class	Costs	Age Group	Quantity
Code	Category	IC	C	GA	Q
IN Innovation					
1011	Product not new to the market	Z3_IN_1011_IC			
1012	Product new to the market	Z3_IN_1012_IC			
1021	Process not new to the market	Z3_IN_1021_IC	Z3_IN_1021_C		
1022	Process new to the market	Z3_IN_1022_IC	Z3_IN_1022_C		
1030	Market and organisational	Z3_IN_1030_IC			
AM Agricultural Machinery					
3010	Tractor < 8 kW (<11 HP)			Z3_AM_3010_GA	Z3_AM_3010_Q
3020	Tractor 8–19 kW (11–26 HP)			Z3_AM_3020_GA	Z3_AM_3020_Q
3030	Tractor 20–39 kW (27–53 HP)			Z3_AM_3030_GA	Z3_AM_3030_Q
3040	Tractor 40–59 kW (54–80 HP)			Z3_AM_3040_GA	Z3_AM_3040_Q
3050	Tractor 60–99 kW (81–134 HP)			Z3_AM_3050_GA	Z3_AM_3050_Q
3060	Tractor > 99 kW (> 134 HP)			Z3_AM_3060_GA	Z3_AM_3060_Q
3070	Tillage machine			Z3_AM_3070_GA	Z3_AM_3070_Q
3080	Seed drill, planters			Z3_AM_3080_GA	Z3_AM_3080_Q
3090	Combine harvester			Z3_AM_3090_GA	Z3_AM_3090_Q
3100	Other self propelled harvester			Z3_AM_3100_GA	Z3_AM_3100_Q
3110	Other trailed harvester			Z3_AM_3110_GA	Z3_AM_3110_Q
3120	Other self propelled agricultural machineries			Z3_AM_3120_GA	Z3_AM_3120_Q
3130	Other agricultural machinery (trailed, mounted)			Z3_AM_3130_GA	Z3_AM_3130_Q
3140	Trucks < 1 ton			Z3_AM_3140_GA	Z3_AM_3140_Q
3150	Trucks 1,0-3,5 tons			Z3_AM_3150_GA	Z3_AM_3150_Q
3160	Trucks > 3,5 tons			Z3_AM_3160_GA	Z3_AM_3160_Q
3170	Irrigation equipment (mobile)			Z3_AM_3170_GA	Z3_AM_3170_Q
3180	Irrigation equipment (fixed)			Z3_AM_3180_GA	Z3_AM_3180_Q
3190	Mower			Z3_AM_3190_GA	Z3_AM_3190_Q
AB Agricultural Buildings					
4010	Cow shed (places)			Z3_AB_4010_GA	Z3_AB_4010_Q
4020	Horse stable (places)			Z3_AB_4020_GA	Z3_AB_4020_Q
4030	Pigsty (places)			Z3_AB_4030_GA	Z3_AB_4030_Q
4040	Poultry house (m2)			Z3_AB_4040_GA	Z3_AB_4040_Q
4050	Sheep fold (places)			Z3_AB_4050_GA	Z3_AB_4050_Q
4060	Solid manure storage (m2)			Z3_AB_4060_GA	Z3_AB_4060_Q
4070	Liquid manure storage (m3) (liquid organic manure from traditional livestock husbandry consist of urine not absorbed by litter)			Z3_AB_4070_GA	Z3_AB_4070_Q
4080	Slurry (m3) (liquid organic manure from intensive livestock husbandry with no littered technology, consist of faeces, urine and water for removal of manure)			Z3_AB_4080_GA	Z3_AB_4080_Q
4090	Milking parlour (places)			Z3_AB_4090_GA	Z3_AB_4090_Q

4100	Crop storage (m2) (It includes feed and silage)			Z3_AB_4100_GA	Z3_AB_4100_Q
4101	of which: air conditioned (m2)			Z3_AB_4101_GA	Z3_AB_4101_Q
4102	Silo (m3)			Z3_AB_4102_GA	Z3_AB_4102_Q
4110	Cold-winded crop dryer (tons)			Z3_AB_4110_GA	Z3_AB_4110_Q
4120	Warm-winded crop dryer (tons/hour)			Z3_AB_4120_GA	Z3_AB_4120_Q
4130	Fodder mixer (tons/hour)			Z3_AB_4130_GA	Z3_AB_4130_Q
4140	Storage for wine (m2)			Z3_AB_4140_GA	Z3_AB_4140_Q
4150	Wine storage equipment (hl)			Z3_AB_4150_GA	Z3_AB_4150_Q
4160	Storage (for fertilizer, spare parts, etc.), (m2)			Z3_AB_4160_GA	Z3_AB_4160_Q
4170	Other agricultural building (m2)			Z3_AB_4170_GA	Z3_AB_4170_Q

Description of the columns:

IC	Innovation Class
C	Costs
GA	Age Group of the Agricultural Equipment or Building
Q	Number of Agricultural Equipment (for group AM) or Building's given unit (for group AB) within an age group

Description of the Categories

Category	Column	Notes
Group of information IN – Innovation		
Product Not new to the Market Product innovations are products (or services) (for marketing) that are new or significantly improved with respect to the base features (a new product), technical specifications, features such as taste, colour, race, for example, packaging or the usability or durability. The innovation must be new for the company within the last three years	<i>Innovation Class</i> Z3_IN_1011_IC	Indicate who has developed these products. Allowed values are : 1 = Your own agricultural enterprise 2 = A separate company (partly) owned by you 3 = Your company in collaboration with other enterprise 4 = By other companies or institutions
Product new to the Market Product innovations are products (or services) (for marketing) that are new or significantly improved with respect to the base features (a new product), technical specifications, features such as taste, colour, race, for example, packaging or the usability or durability. The innovation must be new for the company and for the market within the last three years	<i>Innovation Class</i> Z3_IN_1012_IC	Indicate who has developed these products. Allowed values are : 1 = Your own agricultural enterprise 2 = A separate company (partly) owned by you 3 = Your company in collaboration with other enterprise 4 = By other companies or institutions

Process Not new to the Market Process innovation is new or significantly improved technologies, and new or improved methods for the manufacture and supply of products. Consider, for example, new machines, installations, stables or greenhouses, or computer systems. The innovation must be new for your company within the last three years.	<i>Innovation Class</i> Z3_IN_1021_IC	Indicate who has developed these products. Allowed values are : 1 = Your own agricultural enterprise 2 = A separate company (partly) owned by you 3 = Your company in collaboration with other enterprise 4 = By other companies or institutions
	<i>Costs</i> Z3_IN_1021_C	The total cost over the last three years of this new means of production in local currency
Process new to the Market Process innovation is new or significantly improved technologies, and new or improved methods for the manufacture and supply of products. Consider, for example, new machines, installations, stables or greenhouses, or computer systems. The innovation must be new for your company and new for the market within the last three years.	<i>Innovation Class</i> Z3_IN_1022_IC	Indicates who has developed these products? Allowed values are : 1 = Your own agricultural enterprise 2 = A separate company (partly) owned by you 3 = Your company in collaboration with other enterprise 4 = By other companies or institutions
	<i>Costs</i> Z3_IN_1022_C	The total cost over the last three years of this new means of production in local currency
Market and organisational innovation The innovation must be new for the organization of your company and new for the market within the last three years.	<i>Innovation Class</i> Z3_IN_1030_IC	Allowed values are (multiple values are allowed): 1 = Business organization and management as offices opened, new company was established, set up new partners in company, change of legal form 2 = Marketing, as new form of packaging of products, new contracts/agreements with customers, or modified sales channels, start home sales 3 = New partnerships for example, establishment or membership of, a marketing organization (such as producer organization), study club or other entrepreneurial network; cooperation with educational institutions (such as internships and presentations) 4 = Quality Assurance, new certification or quality marks 5 = Other market and organization innovation (e.g. collective grazing practice, collective acreage, etc.)
Group of information AM – Agricultural Equipment		
categories 3010 to 3190 Multiple entries per category are allowed	<i>Age Group</i> Z3_AM_*_GA	Age group of the machinery. Allowed codes are: 1 = Year 0-1 2 = Year 2-3 3 = Year 4-6 4 = Year 7-10 5 = Year 11-15 6 = Year 16-20 7 = Year 21-30 8 = Year 31-50 9 = Year 50 above Machinery is owned by the farm in the end of the accountancy year (1 HP = 0,74 kW). All machinery, which currently not in use, but can be put into service, must be included. Scrapped and not in use machinery must be excluded. Machinery in shared ownership is excluded.
	<i>Quantity</i> Z3_AM_*_Q	Number of agricultural machinery within the age group.
Group of information AB – Agricultural Buildings		

categories 4010 to 4170 Multiple entries per category are allowed	Age Group Z3_AB_*_GA	Age group of the building. Allowed codes are: 1 = Year 0-1 2 = Year 2-3 3 = Year 4-6 4 = Year 7-10 5 = Year 11-15 6 = Year 16-20 7 = Year 21-30 8 = Year 31-50 9 = Year 50 above Agricultural buildings and structures are owned by the farm in the end of the accountancy year. All structures, which are not in use also must be included. Actual use must be taken account, not the genuine use of the buildings. 4070: Liquid manure storage: liquid organic manure from traditional livestock husbandry consist of urine not absorbed by litter 4080: Slurry: liquid organic manure from intensive livestock husbandry with no littered technology, consist of faeces, urine and water for removal of manure
	Quantity Z3_AB_*_Q	Measured in the given unit of the agricultural building category.

Examples for recording of innovation:

Product innovation: Agricultural product innovations are e.g. new varieties of arable products, fruit or vegetables, new breeds of pigs or cattle, new farm-made products, or entirely new products that were introduced from other countries. The first to the firm production of a farmhouse cheese would be a product innovation. If a farm starts e.g. agri-tourism activities or a farmer shop, that would be product innovation if it is new to the firm and within the boundaries of the existing firm. Agricultural contracting for other farms (e.g. sowing, harvesting, milking services) would also be categorized as a product innovation (i.e. a new service added to the firm's product range). However, new activities clearly outside of the scope of the existing firm (start of a new business that is unrelated to the existing firm or start of work outside of the firm) are not product innovation. An example of changes to the intended uses of a product is e.g. the first (to the market or to the firm) production of sugar beet for the production of biofuels or the first (to the market or to the firm) production of eggs for pharmaceutical applications.

A new form of consumer packaging is not a product innovation if the product is not altered, but can be a marketing innovation. A new form of wholesale packaging is not a product innovation but can be process innovation. An existing product that is now sold with a certificate of sustainable production (e.g. organic) is not a product innovation, but a marketing innovation. Changing the production method from conventional to organic is a process innovation. Selling products under a (new) brand is not a product innovation but a marketing innovation. It is not a (product) innovation if a firm decides to stop doing something, like selling a particular product. Obvious alterations to the products characteristics from e.g. weather influences are not product innovations, nor are regular changes such as crop rotation.

Process innovation: Process innovation can be intended to decrease costs of production or delivery, to increase quality, or to produce or deliver new or significantly improved products. Changes to the method of production in order increase the sustainability of production (e.g. organic) is a process innovation. The first application (to the market or to the firm) of a new tractor, harvester or packaging machine with improved functionality is a process innovation. The first (to the market or to the firm) use of a new tracking and tracing device or system (like RFID, GS1 or other global traceability standards, GPS tracking systems) is a process innovation. Improvements to support activities like purchasing, sales or storage can be process innovation, as long as they include technological changes to the work processes. New processes that are introduced to the firm because of the introduction of a new product are process innovations, unless they are not significantly different from existing processes in the firm. E.g. a farm that introduces a new breed of pigs may have to make minor changes to the stable or the feed mix, which are not considered a process innovation. If the stables or feed mix and system is significantly different it may be classified as a process innovation.

Simple capital replacement or extensions are not process innovations; the purchase of a new or second-hand tractor which has no added functionality compared to the replaced tractor or the purchase of another tractor of the same type is not a process innovation. The same holds for updates of software, ordinary maintenance or replacement of parts with no obvious improvement in specifications. Second-hand machinery that is a

significant improvement to the farm can be a process innovation. Regular changes to logistics that have no fundamental effect on efficiency or sales or have been used before are not process innovations.

Market and organisational innovations: Examples of marketing innovations are the introduction of a new brand with associated labelling, the introduction of a new or significantly improved website, the introduction of a product to a new or different sales channel like (first to the firm) direct sales to restaurants, schools, farm sales, or internet sales. The selling of a product to a new customer in an existing sales channel or the selling of an existing product in a new geographical area with the same marketing methods is not a marketing innovation. Seasonal or regular changes to the marketing methods that are already used before by the firm, are not marketing innovations. Regular changes to packaging that have no fundamental effect on sales or have been used before are not marketing innovations. Changes to the characteristics of the agricultural products itself (such as taste, appearance, form, genetics) can be categorized as product innovations, if they are significant improvements/changes in the view of the entrepreneur (contrary to Oslo Manual guidelines).

Organisational innovations may include e.g. the introduction of supply chain management systems or quality management systems, the first (to the firm) introduction of new management structures, changes to the business entity structure (legal form), or the entry into a formal partnership with other firms or public (research) organisations. Outsourcing of parts of the work previously done by the firm can be an organisational innovation. However, stopping to perform certain activities (without outsourcing to other firms) is not an innovation. Mergers and acquisitions, are not organisational innovations. They may however cause the firm to implement other organisational innovations.

Table Z4: Economic

		Columns						
		Crop %	Livestock %	First Year	UAA Label	Coop. Sales	Direct Sales	Other Sales
Code	Category	CP	LP	FY	UL	CS	DS	OS
LA	Label							
1000	Certified Organic Label	Z4_LA_1000_CP	Z4_LA_1000_LP	Z4_LA_1000_FY	Z4_LA_1000_UL			
2000	EU public quality Label (PDO, PGI, TSG)	Z4_LA_2000_CP	Z4_LA_2000_LP	Z4_LA_2000_FY	Z4_LA_2000_UL			
3000	Other collective quality label	Z4_LA_3000_CP	Z4_LA_3000_LP	Z4_LA_3000_FY	Z4_LA_3000_UL			
MO	Market outlet							
4010	Cereals (excluding straw and silage)					Z4_MO_4010_CS	Z4_MO_4010_DS	Z4_MO_4010_OS
4020	Oilseeds and protein crops					Z4_MO_4020_CS	Z4_MO_4020_DS	Z4_MO_4020_OS
4030	Fruits and vegetables (including citrus fruits, but excluding olives)					Z4_MO_4030_CS	Z4_MO_4030_DS	Z4_MO_4030_OS
4040	Olives					Z4_MO_4040_CS	Z4_MO_4040_DS	Z4_MO_4040_OS
4045	Olive Oil					Z4_MO_4045_CS	Z4_MO_4045_DS	Z4_MO_4045_OS
4050	Grapes					Z4_MO_4050_CS	Z4_MO_4050_DS	Z4_MO_4050_OS
4055	Wine					Z4_MO_4055_CS	Z4_MO_4055_DS	Z4_MO_4055_OS
4060	Beef and calves					Z4_MO_4060_CS	Z4_MO_4060_DS	Z4_MO_4060_OS
4070	Cow's milk					Z4_MO_4070_CS	Z4_MO_4070_DS	Z4_MO_4070_OS
4080	Pig					Z4_MO_4080_CS	Z4_MO_4080_DS	Z4_MO_4080_OS
4090	Sheep and goats (milk, milk products and meat)					Z4_MO_4090_CS	Z4_MO_4090_DS	Z4_MO_4090_OS
4100	Poultry					Z4_MO_4100_CS	Z4_MO_4100_DS	Z4_MO_4100_OS
4110	Eggs					Z4_MO_4110_CS	Z4_MO_4110_DS	Z4_MO_4110_OS
4120	Other sector					Z4_MO_4120_CS	Z4_MO_4120_DS	Z4_MO_4120_OS

4130	Fodder (including hay, straw, silage)					Z4_MO_4130_CS	Z4_MO_4130_DS	Z4_MO_4130_OS
4140	Cow milk products					Z4_MO_4140_CS	Z4_MO_4140_DS	Z4_MO_4140_OS
4150	Piglets					Z4_MO_4150_CS	Z4_MO_4150_DS	Z4_MO_4150_OS

Description of the columns:

CP	Share of turnover from sales of crops and crop products stemming from this type of quality label or certification (%)
LP	Share of turnover from sales of livestock and livestock products stemming from this type of quality label or certification (%)
FY	Indicate the first year when the farm produces under this quality label or certification (Year in 4-digit format)
UL	UAA of the farm under certified farming (ares)
CS	Share of the turnover from sales to cooperatives. (%)
DS	Share of the turnover from direct sales to final consumers. (%)
OS	Share of the turnover from sales in another outlet. (%)

Description of the categories:

Category	Column	Notes
Group of information LA – Label		
Certified Organic Label In 2007 the European Council of Agricultural Ministers agreed on a new Council Regulation (Council Regulation (EC) No. 834/2007) setting out the principles, aims and overarching rules of organic production and defining how organic products were to be labelled. Organic farmers are controlled once a year to make sure that the rules are respected and if they are, the products may bear the organic logo of the European Union. There are two years of conversion period in organic farming before a product can be marketed as organic. (source: European Commission) outputs produced, transformed, marketed under certified organic label and not for outputs that are still produced, transformed, marketed during the conversion period should be considered here	Share of turnover from sales of crops and crop products <i>Z4_LA_1000_CP</i>	Measured in percentages
	Share of turnover from sales of livestock and livestock products <i>Z4_LA_1000_LP</i>	Measured in percentages
	first year when the farm produces under this quality label or certification <i>Z4_LA_1000_FY</i>	Year in 4-digit format
	UAA of the farm under certified organic farming <i>Z4_LA_1000_UL</i>	Area is to be indicated in ares.
EU public quality Label (PDO, PGI, TSG) Protected Designation of Origin (PDO) where the product must be produced, processed and prepared in the geographical area and where the quality or characteristics are essentially due to that area. Protected Geographical Indication (PGI) where the product must be produced or processed or prepared in the geographical area and where a specific quality reputation or other characteristics are attributable to that area. Traditional Specialty Guaranteed (TSG) where the product must be traditional (25 years/handed down through generations) or established by custom. (source: European Commission)	Share of turnover from sales of crops and crop products <i>Z4_LA_2000_CP</i>	Measured in percentages
	Share of turnover from sales of livestock and livestock products <i>Z4_LA_2000_LP</i>	Measured in percentages
	first year when the farm produces under this quality label or certification <i>Z4_LA_2000_FY</i>	Year in 4-digit format
	UAA of the farm under EU public quality label <i>Z4_LA_2000_UL</i>	Area is to be indicated in ares.
Other collective quality label A quality label is also known as Food Quality Certification Scheme (FQCS). Producing under a label means producing in accordance with production prescriptions. The participation in FQCS is voluntary, and it ensures that production complies with quality requirements. A FQCS allows product differentiation and therefore added value. "Certification schemes for agricultural products and	Share of turnover from sales of crops and crop products <i>Z4_LA_3000_CP</i>	Measured in percentages
	Share of turnover from sales of livestock and livestock products <i>Z4_LA_3000_LP</i>	Measured in percentages
	first year when the farm produces	Year in 4-digit format

<p>foodstuffs in the EU range from compliance with compulsory production standards to additional requirements relating to environmental protection, animal welfare, organoleptic qualities, "Fair Trade"... Scheme owners are equally varied, covering the whole range from farmers and producers, through NGOs, interest groups and retailers, to public authorities." (source: European Commission)</p> <p>Collective production standards are set up by groups of farmers, or by farmers and other actors in the food chain.</p>	<p><i>under this quality label or certification</i> Z4_LA_3000_FY</p>	
	<p><i>UAA of the farm under other collective quality label</i> Z4_LA_3000_UL</p>	<p>Area is to be indicated in ares.</p>
Group of information MO - Market outlet		
<p>Categories 4010-4150</p> <p>'Other sector' includes for example industrial crops (potatoes, sugar beet, tobacco, cotton, hop, hemp, etc.), other field crops (aromatic plants, etc.), or other animals (rabbits, buffaloes, deer, etc.). If there are several other sectors, this should be filled for the most important one (in terms of farm turnover).</p>	<p><i>Sales to Cooperatives</i> Z4_MO_*_CS</p>	<p>Codes to be used: 1 = 0 2 = 1-24 3 = 25-49 4 = 50-74 5 = 75-99 6 = 100 This has be understood as follows: if the choice is]0-25[for Cereals and Cooperatives, this means that less than 25% of the turnover generated by cereal activity is sold to cooperatives.</p>
	<p><i>Direct sales to final Customers</i> Z4_MO_*_DS</p>	<p>Codes to be used: 1 = 0 2 = 1-24 3 = 25-49 4 = 50-74 5 = 75-99 6 = 100</p>
	<p><i>Sales in another outlet</i> Z4_MO_*_OS</p>	<p>'Another outlet' refers for example to retailers, wholesalers, processors, middlemen, other farms. Codes to be used: 1 = 0 2 = 1-24 3 = 25-49 4 = 50-74 5 = 75-99 6 = 100</p>

Table Z5: Land Management

		Column
		Area
Code	Category	A
GR	Greening	
1010	Permanent Grassland that receives less than 50 kg N/ha per year and it is dominated by native species without any form of nature protection	Z5_GR_1010_A
1020	Permanent Grassland that receives less than 50 kg N/ha per year with any form of nature protection	Z5_GR_1020_A
1030	EFA-Land laying fallow	Z5_GR_1030_A
1040	EFA-Terraces	Z5_GR_1040_A
1050	EFA-Landscape features	Z5_GR_1050_A
1060	EFA-Buffer strips	Z5_GR_1060_A
1070	EFA-Area of agro-forestry	Z5_GR_1070_A
1080	EFA-Strips of eligible area along forest	Z5_GR_1080_A
1090	EFA-Area with short rotation coppices	Z5_GR_1090_A
1100	EFA-Afforested areas	Z5_GR_1100_A
1110	EFA-Areas with catch crops or green cover	Z5_GR_1110_A
1120	EFA-Areas with nitrogen-fixing crops	Z5_GR_1120_A
1130	Area of native woodlands	Z5_GR_1130_A
1140	Area of ponds and lakes	Z5_GR_1140_A
1150	Other areas of semi-natural vegetation without any form of nature protection	Z5_GR_1150_A
1160	Other areas that is designated for any form of nature protection	Z5_GR_1160_A
NL	Nitrate Leaching Reduction	
2010	catch crop sown in/after crop harvested before Sept. 1st	Z5_NL_2010_A
2020	catch crop sown in/after crop harvested after Sept. 1st	Z5_NL_2020_A
SE	Soil Erosion	
3010	Associated with erosion risk	Z5_SE_3010_A
3020	Associated with erosion risk and was not ploughed	Z5_SE_3020_A
3030	Associated with erosion risk and catch crop was grown and it was incorporated before winter	Z5_SE_3030_A
3040	Associated with erosion risk and catch crop was grown and it was incorporated after winter	Z5_SE_3040_A
3050	Soil cover in every row for vineyards or orchard	Z5_SE_3050_A
3060	Soil cover in every second row for vineyards or orchard	Z5_SE_3060_A

Table Z5 (2): Land Management

		Columns			
		Number	Distance	Cultivated	Favourable
Code	Category	Q	D	C	F
LF	Land Fragmentation				
4010	All Parcels	Z5_LF_4010_Q	Z5_LF_4010_D		Z5_LF_4010_F
4020	Furthest		Z5_LF_4020_D	Z5_LF_4020_C	
4030	Closest		Z5_LF_4030_D		

Table Z5 (3): Land Management

		Columns			
		Sam. Results	Required	Type	Area
Code	Category	SR	R	PT	A
SO	Soil Organic Matter				
5010	Soil Sampling	Z5_SO_5010_SR	Z5_SO_5010_R		
5020	Soil Practices			Z5_SO_5020_PT	Z5_SO_5020_A

Description of the columns:

A	Area is to be indicated in ares
Q	Number of parcels
D	Distance
C	Cultivated, indicating if the parcel is cultivated or not
F	Favorability of the field pattern
SR	Soil Sampling results
R	Required, indicating if the farmer is required by the regulating authority to undertake specific management to increase soil organic matter levels
PT	Arable system practices

Description of the categories:

Category	Column	Notes	
Group of information GR- Greening			
Permanent Grassland that receives less than 50 kg N/ha per year and it is dominated by native species without any formal designation for nature protection	Area Z5_GR_1010_A	Permanent grassland means land used to grow grasses or other herbaceous forage naturally (self-seeded) or through cultivation (sown) and that has not been included in the crop rotation of the holding for five years or more (See Regulation (EU) No 1307/2013). Area is to be indicated in ares (100 ares = 1 hectare).	Permanent grassland that receives less than 50 kg N/ha per year and have vegetation that is dominated by native species without any formal designation for nature protection. Cross compliance is not considered as nature protection. Note that the area may have high nature value, but does not have a formal recognition of this.
Permanent Grassland that receives less than 50 kg N/ha per year with any formal designation for nature protection	Area Z5_GR_1020_A		Permanent grassland which is situated in an area designated for any form of nature protection e.g. Natura 2000 or national/regional nature protection of any form and receives less than 50 kg N/ha.

EFA-Land laying fallow	Area Z5_GR_1030_A	Article 46 of Regulation (EU) No 1307/2013 lists the features and areas that can be applied as ecological focus area by Member States. Area is to be indicated in area. When calculating the total area represented by the ecological focus area of the holding make use of the conversion and/or weighting factors set out in Annex X of Regulation (EU) No 1307/2013.	
EFA-Terraces	Area Z5_GR_1040_A		
EFA-Landscape features	Area Z5_GR_1050_A		Landscape features, including such features adjacent to the arable land of the holding which, by way of derogation from Article 43(1) of this Regulation, may include landscape features that are not included in the eligible area in accordance with point (c) of Article 76(2) of Regulation (EU) No 1306/2013.
EFA-Buffer strips	Area Z5_GR_1060_A		Buffer strips, including buffer strips covered by permanent grassland, provided that these are distinct from adjacent eligible agricultural area.
EFA-Area of agro-forestry	Area Z5_GR_1070_A		Area of agro-forestry that receive or have received support under Article 44 of Regulation (EC) No 1698/2005 and/or Article 23 of Regulation (EU) No 1305/2013.
EFA-Strips of eligible area along forest	Area Z5_GR_1080_A		
EFA-Area with short rotation coppices	Area Z5_GR_1090_A		Areas with short rotation coppice with no use of mineral fertiliser and/or plant protection products.
EFA-Afforested areas	Area Z5_GR_1100_A		
EFA-Areas with catch crops or green cover	Area Z5_GR_1110_A		Areas with catch crops or green cover established by the planting and germination of seeds
EFA-Areas with nitrogen-fixing crops	Area Z5_GR_1120_A		
Area of native woodlands	Area Z5_GR_1130_A	Area of native woodlands. These are dominated by native species and have not been planted for commercial harvesting and not mentioned elsewhere before (not EFA).	
Area of ponds and lakes	Area Z5_GR_1140_A	Area of ponds and lakes should be indicated twice. Please record it as EFA-Landscape feature as well.	
Other areas of semi-natural vegetation without any form of nature protection	Area Z5_GR_1150_A	Other areas of semi-natural vegetation, which may include ineligible areas (e.g. peat lands, limestone pavements) and not mentioned elsewhere before. Ecological Focus area is excluded.	
Other areas that is designated for any form of nature protection	Area Z5_GR_1160_A	Any other areas that are in Natura 2000 or have a nature designation of any form and not mentioned elsewhere before.	

Group of information: NL - Nitrate Leaching Reduction		
catch crop sown in/after crop harvested before September 1st	Area Z5_NL_2010_A	What is the area of catch crop sown in or after main crops that were harvested before September 1st (harvest date of main crop).
catch crop sown in/after crop harvested after September 1st	Area Z5_NL_2020_A	What is the area of catch crop sown in or after main crops that were harvested after September 1st (harvest date of main crop).
Group of information SE – Soil Erosion		
Associated with erosion risk	Area Z5_SE_3010_A	Indicate the area which is associated with erosion risk. Area is to be indicated in ares. The erosion risk is to be assessed using 'decision tables' (given at the end of 'land management' section of the document) regarding soil erosion caused by wind and soil erosion caused by water.
Associated with erosion risk and was not ploughed	Area Z5_SE_3020_A	Indicate the area which is associated with erosion risk and was not ploughed. Area is to be indicated in ares. The erosion risk is to be assessed using 'decision tables' (given at the end of 'land management' section of the document) regarding soil erosion caused by wind and soil erosion caused by water.
Associated with erosion risk and catch crop was grown and it was incorporated before winter	Area Z5_SE_3030_A	Indicate the area which is associated with erosion risk and catch crop was grown and it was incorporated before winter. Area is to be indicated in ares. The erosion risk is to be assessed using 'decision tables' (given at the end of 'land management' section of the document) regarding soil erosion caused by wind and soil erosion caused by water.
Associated with erosion risk and catch crop was grown and it was incorporated after winter	Area Z5_SE_3040_A	Indicate the area which is associated with erosion risk and catch crop was grown and it was incorporated after winter. Area is to be indicated in ares. The erosion risk is to be assessed using 'decision tables' (given at the end of 'land management' section of the document) regarding soil erosion caused by wind and soil erosion caused by water.
Soil cover in every row for vineyards or orchard	Area Z5_SE_3050_A	Indicate the area where soil covered in every row in case of vineyards or orchard. Area is to be indicated in ares.
Soil cover in every second row for vineyards or orchard	Area Z5_SE_3060_A	Indicate the area where soil covered in every second row in case of vineyards or orchard. Area is to be indicated in ares.
Group of information LF – Land Fragmentation		
All Parcels	Number Z5_LF_4010_Q	The number of Reference Parcel. 'Reference parcel' shall be defined according to EC Regulation No 796/2004 as "a geographically delimited area retaining a unique identification as registered in the GIS in the Member State's identification system" (article 1). As is explained in article 6 of the same regulation, such a reference parcel may be a "cadastral parcel, or production block" but it is different from an 'agricultural parcel', which is defined by the same regulation as "a continuous area of land on which a single crop group is cultivated by a single farmer" (article 1). It appears that, because cadastral parcels rarely are consistent with agricultural production practices, most Member States' land parcel identification system (LPIS) (the GIS based implementation of the 'identification system for agricultural parcels') operate with the concept of 'production block'. While no formal definition of a 'production block' exists in the above regulations, it has become common practice in these LPIS to define it as "a piece of agricultural land delimited by easily identifiable landmarks such as agricultural byways, larger ditches or hedgerows, roads, rivers, or other farmers' production blocks, and stable from year to year"; under this definition, a 'production block' may be composed of one or several 'agricultural parcels', i.e., may support a single or several different crops. Questions are therefore phrased using the term 'reference parcel' but, when translated into each Member State's national context, questionnaires should be adapted to reflect the local LPIS practice in terms of 'reference parcel' definition.

	<i>Distance</i> Z5_LF_4010_D	Average Distance of reference parcels in kilometres. Distance should be measured from the reference parcels entries to the 'farming operation centre', which is typically the farmstead, where the farmer or farm manager lives. However, the farming operations centre may be located elsewhere, often around another production building or storage, or another homestead. In any case, distances shall refer to the moving of farming machinery (tractor trips being the most common example), and not driving by car, along the most useful route with farming machinery. Reference parcels located directly next to the farming operations centre shall be accounted for with a distance of zero. Distance in kilometres with a 1-decimal-digit precision (e.g."0.2")
	<i>Favorability</i> Z5_LF_4010_F	How favourable does the farmer globally rate the field pattern of your farm as regards the efficiency of current farming activities management? Codes to be used: 1 = Very constraining 2 = Constraining 3 = Appropriate 4 = Excellent The field pattern maybe constraining in the sense that, e.g., distant and/or numerous plots may constrain production choices, practices or labour allocation, scattered plots may increase transportation costs, irregularly shaped plots induce extra machinery manoeuvre, etc.
Furthest parcel	<i>Distance</i> Z5_LF_4020_D	Distance of the furthest parcel to the farming operation centre. Distance in kilometres with a 1-decimal-digit precision (e.g."0.2")
	<i>Cultivation</i> Z5_LF_4020_C	Codes to be used: 1 = The parcel is not cultivated 2 = The parcel is cultivated by the farmer 3 = The parcel is cultivated by third party 'Cultivated' refers to using the parcel for growing crops (sold or for on-farm consumption) or animal grazing.
Closest parcel	<i>Distance</i> Z5_LF_4030_D	Distance of the closest parcel to the farming operation centre. Distance in kilometres with a 1-decimal-digit precision (e.g."0.2")
Group of information SO - Soil Organic Matter		
Soil Sampling	<i>Soil sampling</i> Z5_SO_5010_SR	Was there any soil sampling in the last six years. Codes to be used 1 = No soil sampling at all 2 = Yes, but not for SOM 3 = Soil sampling and SOM level is below 3.4% for the soil sample across any one of the arable land parcels (on the last occasion of sampling) 4 = Soil sampling and SOM level is above 3.4% for the soil sample across all arable land parcels (on the last occasion of sampling)
	<i>Required</i> Z5_SO_5010_R	Are you required by the regulating authority to undertake specific management to increase soil organic matter levels? 1 = Yes 2 = No
Soil practice	<i>Soil Practice Type</i> Z5_SO_5020_PT	Allowed values are (multiple values are allowed): 1 = Ploughing in of straw 2 = Application of farmyard manures or compost 3 = Application of other organic fertilizer 4 = Use of cover crops 5 = Crop rotation 6 = Long-term reduced till options (no ploughing for more than five years) 7 = Use of a grass-based crop as part of the arable system/crop rotation
	<i>Area</i> Z5_SO_5020_A	Indicate the area to which the soil practice type is applied. Area is to be indicated in ares. Multiple values are allowed.

Explanation to assess soil erosion

Soil erosion caused by wind:

	Sandy soil		
	Yes		No
	Field bordered with line of trees		
	yes	no	
Wind erosion	No risk	Risk	No risk

Soil erosion caused by water:

Clay soil			
	Yes	No	
		Flat area	
		yes	no
	No risk	No risk	Risk

Table Z6: Risk Reduction

		Columns								
		Id. Type	Sp. Type	Contract Type	Price.	Quantity	Duration	Share	Other	Hours
Category		IT	ST	CT	PT	QT	DT	SH	OT	H
IN Insurance										
1010	Crop insurance	Z6_IN_1010_IT	Z6_IN_1010_ST							
1020	Building insurance	Z6_IN_1020_IT	Z6_IN_1020_ST							
1030	Personal disability		Z6_IN_1030_ST							
1040	Livestock		Z6_IN_1040_ST							
CO Marketing Contracts										
2010	Contract			Z6_CO_2010_CT	Z6_CO_2010_PT	Z6_QT_2010_QT	Z6_DT_2010_DT	Z6_SH_2010_SH	Z6_OT_2010_OT	
AM Alternative Methods										
3010	Risk reduction measures	Z6_AM_3010_IT								
3020	Off-farm employment		Z6_AM_3020_ST							Z6_AM_3020_H
3030	Other gainful activities	Z6_AM_3030_IT								

Description of columns:

IT	Identifying Type, code to further identify the category, for instance crop insurance can either be against hail, storm, rain or draught
ST	Specifying Type, code to further identify the category, for instance crop insurance can cover only direct or direct and indirect damages
CT	Contract Type specifying the product to which the contract relates
PT	Price Type, specifying the type of price contract
QT	Quantity Type, specifying the type of quantity contract
DT	Duration Type, specifying the type of duration type of a contract
SH	Share in Turnover, specifying the share of the production of this product, covered by the contract.
OT	Other Contract Type, specifying the other characteristics of a contract
H	Hours worked

Description of categories:

Category	Column	Notes
Group of information IN - Insurance		
Crop Insurance	<i>Identifying Type</i> Z6_IN_1010_IT	Allowed values for identifying type (column IT), multiple selections are allowed: 1 = Hail damage 2 = Storm Damage 3 = Rain Damage 4 = Draught Damage 5 = Frost 6= Other (for e.g.: fire, damages caused by wild animals)
	<i>Specifying Type</i> Z6_IN_1010_ST	Allowed values for specifying type (column ST): 1 = Direct damages. The costs of replacing the damaged goods (buildings, crops, animals) are reimbursed by the insurance. 2 = Direct and Indirect Damages. Indirect damages such as costs due to lost production is also covered by the insurance.
Building Insurance	<i>Identifying Type</i> Z6_IN_1020_IT	Allowed values for identifying type (column IT), multiple selections are allowed: 1 = Hail damage 2 = Storm Damage 3 = Rain Damage 4 = Other
	<i>Specifying Type</i> Z6_IN_1020_ST	Allowed values for specifying type (column ST): 1 = Direct damages. The costs of replacing the damaged goods (buildings, crops, animals) are reimbursed by the insurance. 2 = Direct and Indirect Damages. Indirect damages such as costs due to lost production is also covered by the insurance.
Personal Disability	<i>Specifying Type</i> Z6_IN_1030_ST	Insurance concerning personal disability refers only for the owner. Allowed values for specifying type (column ST): 1 = Yes. 2 = No.
Livestock Insurance	<i>Specifying Type</i> Z6_IN_1040_ST	Allowed values for specifying type (column ST): 1 = Direct damages. The costs of replacing the damaged goods (buildings, crops, animals) are reimbursed by the insurance. 2 = Direct and Indirect Damages. Indirect damages such as costs due to lost production is also covered by the insurance.

Group of information CO – Marketing Contracts		
<p>Contract This categories represents the (max 4) most important (in value) sales contracts (products) of the company.</p> <p>The category focusses on the marketing of agricultural and horticultural products, not electricity supply or manure. It concerns written contracts. If the entrepreneur indicates there is no written contract, but it is suspected that there is a fixed agreement (such as an confirmation by email) then it should be understood as a written contract</p>	<p><i>Contract Type</i> Z6_CO_2010_CT</p>	<p>Allowed values for the contract type (column CT) are:</p> <ol style="list-style-type: none"> 1. = Cereals for the production of grain (including seeds) 2. = Dried pulses and protein crops for the production of grain (including seed and mixtures of cereals and pulses) 3. = Industrial crops 4. = Fresh vegetables, melons and strawberries 5. = Fruit (except olive) 6. = Olive oil 7. = Grapes 8. = Wine 9. = Other crop products 10. = Beef and calves 11. = Pig 12. =Poultry 13. = Sheep and goats (milk, milk products and meet) 14. = Other animal 15. = Cow's milk 16. = Eggs 17. = Other animal products 18. = Other (any production not mentioned elsewhere) <p>Multiple selections are allowed</p>
	<p><i>Price Type</i> Z6_CO_2010_PT</p>	<p>Allowed values for the price type (column PT) are:</p> <ol style="list-style-type: none"> 1 = Fixed Price (The contract specifies a pre-determined price for which the product is delivered. If the market price is higher than the fixed price the farmer will not benefit from this higher price.) 2 = Minimum Price (The contract guarantees a minimum price. If the market prices at the moment of delivery is higher than the specified minimum price, the farmer will benefit from this higher price.) 3 = Market Price (The price a farmer receives depends on the market price at the moment of delivery.) 4 = Pool (Pool contracts average the market value of a commodity over a specified period. The price received reflects the average price over months of market activities.) <p>Multiple selections are allowed.</p>
	<p><i>Quantity Type</i> Z6_CO_2010_QT</p>	<p>Allowed values for the quantity type (column QT) are:</p> <ol style="list-style-type: none"> 1 = Fixed Quantity (The contract specifies the amount to be delivered under the contract.) 2 = Supply Obligation (The contract requires the farmers to deliver all (s)he produces under the condition of the contract) <p>Multiple selections are allowed.</p>
	<p><i>Duration Type</i> Z6_CO_2010_DT</p>	<p>Allowed values for the duration type (column DT) are:</p> <ol style="list-style-type: none"> 1 = One year or less 2 = Multiple years <p>Multiple selections are allowed.</p>
	<p><i>Share in Turnover</i> Z6_CO_2010_SH</p>	<p>Allowed values (column SH) are:</p> <ol style="list-style-type: none"> 1 = 0-19% 2 = 20-49% 3 = 50-79% 4 = 80-99% 5 = 100% <p>It asks for a very broad estimate of the share of the production of this product, covered by the contract. In the case of an exclusive supply obligation, therefore, this percentage is 100%.</p> <p>Multiple selections are allowed.</p>
	<p><i>Other Contract Characteristic</i> Z6_CO_2010_OT</p>	<p>Allowed values for the other type (column OT) are:</p> <ol style="list-style-type: none"> 1 = Time of Delivery 2 = Quality (the goods must comply with the minimum quality requirements for e.g. purity, protein content, etc.) 3 = Other <p>Multiple selections are allowed.</p>
Group of information AM – Alternative Methods		

Measures that could contribute to risk reduction	<i>Identifying Type</i> Z6_AM_3010_IT	<p>Allowed values for identifying type (column IT), multiple selections are allowed:</p> <p>1 = Diversification. Involves participating in more than one activity, being involved in the production of more than one type of commodity. Farmers and farm managers, faced by price and yield variability, may wish to select a combination of commodities to reduce the variability of farm income.</p> <p>2 = On farm processing / sales. Further processing of the crop or livestock products produced on the farm or direct sales of farm products to consumers</p> <p>3 = Off-farm investment. Investments in other companies, stocks, bonds etc. outside of the farm</p> <p>4 = Avoiding use of credit. Minimizing dependency on external financiers by avoiding credits</p> <p>5 = Hedging (futures and options). Hedging is done or organized exchanges to limit or offset the probability of loss from fluctuations in the prices of agricultural products</p> <p>6 = Holding financial reserves. Financial buffers consisting of cash or savings</p> <p>7 = Production Contracts</p> <p>8 = Other Any other measures that could contribute to risk reduction and which does not fit into the categories mentioned above.</p>
Off-farm Employment	<i>Specifying Type</i> Z6_AM_3020_ST	<p>Allowed values for identifying type (column ST), multiple selections are allowed:</p> <p>1 = Owner</p> <p>2 = Spouse</p> <p>Off farm paid employment can be employed or self-employed. The question refers for groups 10 and 20 in Table C.</p>
	<i>Hours</i> Z6_AM_3020_H	Number of hours worked of off-farm employment in the given accounting year. Multiple values are allowed.
Other gainful activities	<i>Identifying Type</i> Z6_AM_3030_IT	<p>Allowed values for identifying type (column IT), multiple selections are allowed:</p> <p>1 = Farm tourism</p> <p>2 = Processing of agricultural products</p> <p>3 = Child / health care</p> <p>4 = Nature management (Agricultural nature management consists of measures taken by farmers to improve nature and landscape. Some of these measures require an extra effort, bring additional costs or result in a loss of income. For these measures, the farmer can agree on a contract with the government to receive compensation from the government.)</p> <p>5 = Production of renewable energy</p> <p>6 = Contract work for others</p> <p>7 = Other</p>

Table Z7: Pesticide Usage

		Columns	
		Amount	Active Subst.
Code	Category	V	AS
CR	Crops		
10110	Common wheat and spelt	Z7_CR_10110_V	Z7_CR_10110_AS
...
10210	Peas, field beans and sweet lupines	Z7_CR_10210_V	Z7_CR_10210_AS
...
10610	Tobacco	Z7_CR_10610_V	Z7_CR_10610_AS
...
10713	Cauliflower and broccoli	Z7_CR_10713_V	Z7_CR_10713_AS
...
10830	Flower bulbs, corms and tubers	Z7_CR_10830_V	Z7_CR_10830_AS
...
10910	Temporary grass	Z7_CR_10910_V	Z7_CR_10910_AS
...
11100	Other arable land crops	Z7_CR_11100_V	Z7_CR_11100_AS
...
40111	Apples	Z7_CR_40111_V	Z7_CR_40111_AS
...
60000	Mushrooms	Z7_CR_60000_V	Z7_CR_60000_AS

Description of column:

V	Amount must be expressed in kilogram. Multiple values are allowed.
AS	Active Substance, the active substance used on the crops. Multiple values are allowed.

Description of categories: these exactly follow the definition of the categories in table I of the Farm Return Data Definitions

Categories		Amount	Active Substance
Group of information CR - Crops			
10110	Common wheat and spelt	Z7_CR_10110_V	Z7_CR_10110_AS
10120	Durum wheat	Z7_CR_10120_V	Z7_CR_10120_AS
10130	Rye	Z7_CR_10130_V	Z7_CR_10130_AS
10140	Barley	Z7_CR_10140_V	Z7_CR_10140_AS
10150	Oats	Z7_CR_10150_V	Z7_CR_10150_AS
10160	Grain maize	Z7_CR_10160_V	Z7_CR_10160_AS
10170	Rice	Z7_CR_10170_V	Z7_CR_10170_AS
10190	Other cereals for the production of grain	Z7_CR_10190_V	Z7_CR_10190_AS
10210	Peas, field beans and sweet lupines	Z7_CR_10210_V	Z7_CR_10210_AS
10220	Lentils, chickpeas and vetches	Z7_CR_10220_V	Z7_CR_10220_AS
10290	Other protein crops	Z7_CR_10290_V	Z7_CR_10290_AS
10300	Potatoes (including early potatoes and seed potatoes)	Z7_CR_10300_V	Z7_CR_10300_AS
10310	Potatoes for starch	Z7_CR_10310_V	Z7_CR_10310_AS
10390	Other potatoes	Z7_CR_10390_V	Z7_CR_10390_AS
10400	Sugar beet (excluding seed)	Z7_CR_10400_V	Z7_CR_10400_AS
10500	Fodder roots and brassicas (excluding seed)	Z7_CR_10500_V	Z7_CR_10500_AS
10601	Tobacco	Z7_CR_10601_V	Z7_CR_10601_AS
10602	Hops	Z7_CR_10602_V	Z7_CR_10602_AS
10603	Cotton	Z7_CR_10603_V	Z7_CR_10603_AS
10604	Rape and turnip rape	Z7_CR_10604_V	Z7_CR_10604_AS
10605	Sunflower	Z7_CR_10605_V	Z7_CR_10605_AS
10606	Soya	Z7_CR_10606_V	Z7_CR_10606_AS
10607	Linseed (oil flax)	Z7_CR_10607_V	Z7_CR_10607_AS
10608	Other oil seed crops	Z7_CR_10608_V	Z7_CR_10608_AS
10609	Flax	Z7_CR_10609_V	Z7_CR_10609_AS
10610	Hemp	Z7_CR_10610_V	Z7_CR_10610_AS
10611	Other fibre plants	Z7_CR_10611_V	Z7_CR_10611_AS
10612	Aromatic plants, medical and culinary plants	Z7_CR_10612_V	Z7_CR_10612_AS
10613	Sugar cane	Z7_CR_10613_V	Z7_CR_10613_AS
10690	Other industrial crops not mentioned elsewhere	Z7_CR_10690_V	Z7_CR_10690_AS
10731	Cauliflower and broccoli	Z7_CR_10731_V	Z7_CR_10731_AS
10732	Lettuce	Z7_CR_10732_V	Z7_CR_10732_AS
10733	Tomatoes	Z7_CR_10733_V	Z7_CR_10733_AS
10734	Sweet corn	Z7_CR_10734_V	Z7_CR_10734_AS
10735	Onions	Z7_CR_10735_V	Z7_CR_10735_AS
10736	Garlic	Z7_CR_10736_V	Z7_CR_10736_AS
10737	Carrots	Z7_CR_10737_V	Z7_CR_10737_AS
10738	Strawberries	Z7_CR_10738_V	Z7_CR_10738_AS
10739	Melons	Z7_CR_10739_V	Z7_CR_10739_AS
10790	Other	Z7_CR_10790_V	Z7_CR_10790_AS
10830	Flower bulbs, corms and tubers	Z7_CR_10830_V	Z7_CR_10830_AS
10840	Cut flowers and flower buds	Z7_CR_10840_V	Z7_CR_10840_AS
10850	Flowering and ornamental plants	Z7_CR_10850_V	Z7_CR_10850_AS
10910	Temporary grass	Z7_CR_10910_V	Z7_CR_10910_AS
10921	Green maize	Z7_CR_10921_V	Z7_CR_10921_AS
10922	Leguminous plants	Z7_CR_10922_V	Z7_CR_10922_AS
10923	Other plants harvested green but not mentioned elsewhere	Z7_CR_10923_V	Z7_CR_10923_AS
11000	Arable land seed and seedlings	Z7_CR_11000_V	Z7_CR_11000_AS
11100	Other arable land crops	Z7_CR_11100_V	Z7_CR_11100_AS

40111	Apples	Z7_CR_40111_V	Z7_CR_40111_AS
40112	Pears	Z7_CR_40112_V	Z7_CR_40112_AS
40113	Peaches and nectarines	Z7_CR_40113_V	Z7_CR_40113_AS
40114	Other fruit of temperate zones	Z7_CR_40114_V	Z7_CR_40114_AS
40115	Fruit of subtropical or tropical zones	Z7_CR_40115_V	Z7_CR_40115_AS
40120	Berry species	Z7_CR_40120_V	Z7_CR_40120_AS
40130	Nuts	Z7_CR_40130_V	Z7_CR_40130_AS
40210	Oranges	Z7_CR_40210_V	Z7_CR_40210_AS
40220	Tangerines, mandarins, clementines and similar small fruit	Z7_CR_40220_V	Z7_CR_40220_AS
40230	Lemons	Z7_CR_40230_V	Z7_CR_40230_AS
40290	Other citrus fruit	Z7_CR_40290_V	Z7_CR_40290_AS
40310	Table olives	Z7_CR_40310_V	Z7_CR_40310_AS
40320	Olives for oil production (sold in the form of fruit)	Z7_CR_40320_V	Z7_CR_40320_AS
40330	Olive oil	Z7_CR_40330_V	Z7_CR_40330_AS
40411	Quality wine with protected designation of origin (PDO)	Z7_CR_40411_V	Z7_CR_40411_AS
40412	Quality wine with protected geographical indication (PGI)	Z7_CR_40412_V	Z7_CR_40412_AS
40420	Other wines	Z7_CR_40420_V	Z7_CR_40420_AS
40430	Table grapes	Z7_CR_40430_V	Z7_CR_40430_AS
40440	Raisins	Z7_CR_40440_V	Z7_CR_40440_AS
40451	Grapes for quality wine with protected designation of origin (PDO)	Z7_CR_40451_V	Z7_CR_40451_AS
40452	Grapes for quality wine with protected geographical indication (PGI)	Z7_CR_40452_V	Z7_CR_40452_AS
40460	Grapes for other wines	Z7_CR_40460_V	Z7_CR_40460_AS
40500	Nurseries	Z7_CR_40500_V	Z7_CR_40500_AS
40600	Other permanent crops	Z7_CR_40600_V	Z7_CR_40600_AS
40610	of which Christmas trees	Z7_CR_40610_V	Z7_CR_40610_AS
40700	Permanent crops under glass	Z7_CR_40700_V	Z7_CR_40700_AS
50200	Wooded area	Z7_CR_50200_V	Z7_CR_50200_AS
50210	of which short rotation coppices	Z7_CR_50210_V	Z7_CR_50210_AS
60000	Mushrooms	Z7_CR_60000_V	Z7_CR_60000_AS

Codes to be used for the Active Substance column based on the EU Pesticides database, allowed substances in the EU:

Code	Description
Acaricides	
10010	Abamectin (aka avermectin)
10020	Acequinocyl
10030	Acrinathrin
10040	Bifenazate
10050	Clofentezine
10060	Cyflumetofen
10070	Fenazaquin
10080	Fenpyroximate
10090	Hexythiazox
10100	Pyridaben
10110	Spirodiclofen
10120	Spiromesifen
10130	Tebufenpyrad
Algicides	
20010	Quinoclamine
Attractants	

30010	(E)-11-Tetradecen-1-yl acetate
30020	(E)-5-Decen-1-ol
30030	(E)-5-Decen-1-yl acetate
30040	(E)-8-Dodecen-1-yl acetate
30050	(E,E)-7,9-Dodecadien-1-yl acetate
30060	(E,E)-8,10-Dodecadien-1-ol
30070	(E,Z)-2,13-Octadecadien-1-yl acetate
30080	(E,Z)-7,9-Dodecadien-1-yl acetate
30090	(E,Z)-8-Dodecen-1-yl acetate
30100	(Z)-11-Hexadecen-1-ol
30110	(Z)-11-Hexadecen-1-yl acetate
30120	(Z)-11-Hexadecenal
30130	(Z)-11-Tetradecen-1-yl acetate
30140	(Z)-13-Hexadecen-11-yn-1-yl acetate
30150	(Z)-13-Octadecenal
30160	(Z)-7-Tetradecenal
30170	(Z)-8-Dodecen-1-ol
30180	(Z)-8-Dodecen-1-yl acetate
30190	(Z)-9-Dodecen-1-yl acetate
30200	(Z)-9-Hexadecenal
30210	(Z)-9-Tetradecen-1-yl acetate
30220	(Z,E)-7,11-Hexadecadien-1-yl acetate
30230	(Z,E)-9,12-Tetradecadien-1-yl acetate
30240	(Z,Z)-7,11-Hexadecadien-1-yl acetate
30250	(Z,Z,Z,Z)-7,13,16,19-Docosatetraen-1-yl isobutyrate
30260	Dodecan-1-ol
30270	Dodecyl acetate
30280	Putrescine (1,4-Diaminobutane))
30290	Straight Chain Lepidopteran Pheromones
30300	Tetradecan-1-ol
Bactericides	
40010	Aluminium sulphate
40020	Bacillus subtilis str. QST 713
40030	Benzoic acid
40040	Sodium hypochlorite
Elicitors	
50010	Heptamaloxyloglucan
50020	Laminarin
Fungicides	
60010	2,5-Dichlorobenzoic acid methylester
60020	2-Phenylphenol (incl. sodium salt orthophenyl phenol)
60030	8-Hydroxyquinoline incl. oxyquinoleine
60040	Ametoctradin
60050	Amisulbrom
60060	Ampelomyces quisqualis strain AQ10

60070	Ascorbic acid
60080	Aureobasidium pullulans (strains DSM 14940 and DSM 14941)
60090	Azoxystrobin
60100	Bacillus pumilus QST 2808
60110	Benalaxyl
60120	Benalaxyl-M
60130	Benthiavalicarb
60140	Bixafen
60150	Bordeaux mixture
60160	Boscalid (formerly nicobifen)
60170	Bromuconazole
60180	Bupirimate
60190	Candida oleophila strain O
60200	Captan
60210	Carboxin
60220	Chlorothalonil
60230	Coniothyrium minitans
60240	Copper compounds
60250	Copper hydroxide
60260	Copper oxide
60270	Copper oxychloride
60280	Cyazofamid
60290	Cyflufenamid
60300	Cymoxanil
60310	Cyproconazole
60320	Cyprodinil
60330	Diethofencarb
60340	Difenoconazole
60350	Dimethomorph
60360	Dimoxystrobin
60370	Disodium phosphonate
60380	Dithianon
60390	Dodemorph
60400	Dodine
60410	Epoxiconazole
60420	Etridiazole
60430	Eugenol
60440	Extract from tea tree
60450	Famoxadone
60460	Fenamidone
60470	Fenbuconazole
60480	Fenhexamid
60490	Fenpropidin
60500	Fenpropimorph
60510	Fenpyrazamine

60520	Fluazinam
60530	Fludioxonil
60540	Fluopicolide
60550	Fluopyram
60560	Fluoxastrobin
60570	Fluquinconazole
60580	Flutolanil
60590	Flutriafol
60600	Fluxapyroxad
60610	Folpet
60620	Fosetyl
60630	Fuberidazole
60640	Geraniol
60650	Gliocladium catenulatum strain J1446
60660	Hymexazol
60670	Imazalil (aka enilconazole)
60680	Iprodione
60690	Iprovalicarb
60700	Isopyrazam
60710	Kresoxim-methyl
60720	Lime sulphur (calcium polysulphid)
60730	Mancozeb
60740	Mandipropamid
60750	Maneb
60760	Mepanipyrim
60770	Metalaxyl
60780	Metalaxyl-M
60790	Metam (incl. -potassium and -sodium)
60800	Metconazole
60810	Metiram
60820	Metrafenone
60830	Myclobutanil
60840	Penconazole
60850	Pencycuron
60860	Penflufen
60870	Penthiopyrad
60880	Phlebiopsis gigantea (several strains)
60890	Picoxystrobin
60900	Potassium phosphonates (formerly potassium phosphite)
60910	Prochloraz
60920	Propamocarb
60930	Propiconazole
60940	Propineb
60950	Proquinazid
60960	Prothioconazole

60970	Pseudomonas chlororaphis strain MA342
60980	Pyraclostrobin
60990	Pyrimethanil
61000	Pyriofenone
61010	Pythium oligandrum M1
61020	Quinoxifen
61030	Sedaxane
61040	Silthiofam
61050	Spiroxamine
61060	Streptomyces K61 (formerly S. griseoviridis)
61070	Streptomyces lydicus WYEC 108
61080	Sulphur
61090	Tebuconazole
61100	Tetraconazole
61110	Thiabendazole
61120	Thiophanate-methyl
61130	Thiram
61140	Thymol
61150	Tolclofos-methyl
61160	Triadimenol
61170	Triazoxide
61180	Tribasic copper sulfate
61190	Trichoderma asperellum (formerly T. harzianum) strains ICC012, T25 and TV1
61200	Trichoderma asperellum (strain T34)
61210	Trichoderma atroviride (formerly T. harzianum) strains IMI 206040 and T11
61220	Trichoderma atroviride strain I-1237
61230	Trichoderma gamsii (formerly T. viride) strain ICC080
61240	Trichoderma polysporum strain IMI 206039
61250	Trifloxystrobin
61260	Triflumizole
61270	Triticonazole
61280	Valifenalate (formerly Valiphenal)
61290	Verticillium albo-atrum (formerly Verticillium dahliae) strain WCS850
61300	Ziram
61310	Zoxamide
61320	Zucchini Yellow Mosaik Virus, weak strain
Herbicides	
70010	2,4-D
70020	2,4-DB
70030	Acetic acid
70040	Aclonifen
70050	Amidosulfuron
70060	Aminopyralid
70070	Amitrole (aminotriazole)
70080	Azimsulfuron

70090	Beflubutamid
70100	Benfluralin
70110	Bensulfuron
70120	Bentazone
70130	Bifenox
70140	Bispyribac
70150	Bromoxynil
70160	Carbetamide
70170	Carfentrazone-ethyl
70180	Chloridazon (aka pyrazone)
70190	Chlorotoluron
70200	Chlorsulfuron
70210	Clethodim
70220	Clodinafop
70230	Clomazone
70240	Clopyralid
70250	Cycloxydim
70260	Cyhalofop-butyl
70270	Desmedipham
70280	Dicamba
70290	Dichlorprop-P
70300	Diclofop
70310	Diflufenican
70320	Dimethachlor
70330	Dimethenamid-P
70340	Diquat (dibromide)
70350	Diuron
70360	Ethofumesate
70370	Fenoxaprop-P
70380	Flazasulfuron
70390	Florasulam
70400	Fluazifop-P
70410	Flufenacet (formerly fluthiamide)
70420	Flumioxazin
70430	Fluometuron
70440	Flupyrsulfuron-methyl (DPX KE 459)
70450	Flurochloridone
70460	Fluroxypyr
70470	Flurtamone
70480	Foramsulfuron
70490	Glufosinate
70500	Glyphosate (incl trimesium aka sulfosate)
70510	Halosulfuron methyl
70520	Haloxyp-P (Haloxyp-R)
70530	Imazamox

70540	Imazosulfuron
70550	Iodosulfuron
70560	Ioxynil
70570	Iron sulphate
70580	Isoproturon
70590	Isoxaben
70600	Isoxaflutole
70610	Lenacil
70620	Linuron
70630	MCPA
70640	MCPB
70650	Mecoprop
70660	Mecoprop-P
70670	Mesosulfuron
70680	Mesotrione
70690	Metamitron
70700	Metazachlor
70710	Metobromuron
70720	Metosulam
70730	Metribuzin
70740	Metsulfuron-methyl
70750	Molinate
70760	Napropamide
70770	Nicosulfuron
70780	Oryzalin
70790	Oxadiazon
70800	Oxasulfuron
70810	Oxyfluorfen
70820	Pendimethalin
70830	Penoxsulam
70840	Pethoxamid
70850	Phenmedipham
70860	Picloram
70870	Picolinafen
70880	Plant oils / Citronella oil
70890	Profoxydim
70900	Propaquizafop
70910	Propoxycarbazone
70920	Propyzamide
70930	Prosulfocarb
70940	Prosulfuron
70950	Pyraflufen-ethyl
70960	Pyridate
70970	Pyroxsulam
70980	Quinmerac

70990	Quizalofop-P
71000	Quizalofop-P-ethyl
71010	Quizalofop-P-tefuryl
71020	Rimsulfuron (aka renriduron)
71030	S-Metolachlor
71040	Sulcotrione
71050	Sulfosulfuron
71060	Tembotrione
71070	Tepraloxymid
71080	Terbutylazine
71090	Thiencarbazone
71100	Thifensulfuron-methyl
71110	Tralkoxydim
71120	Tri-allate
71130	Triasulfuron
71140	Tribenuron (aka metometuron)
71150	Triclopyr
71160	Triflurosulfuron
71170	Tritosulfuron
Insecticides	
80010	Acetamiprid
80020	Adoxophyes orana GV strain BV-0001
80030	Alpha-Cypermethrin (aka alphamethrin)
80040	Aluminium phosphide
80050	Azadirachtin
80060	Beauveria bassiana strains ATCC 74040 and GHA
80070	Beta-Cyfluthrin
80080	Bifenthrin
80090	Buprofezin
80100	Capric acid (CAS 334-48-5)
80110	Caprylic acid (CAS 124-07-2)
80120	Carbon dioxide
80130	Chlorantraniliprole
80140	Chlorpyrifos
80150	Chlorpyrifos-methyl
80160	Clothianidin
80170	Cydia pomonella Granulovirus (CpGV)
80180	Cypermethrin
80190	Cyromazine
80200	Deltamethrin
80210	Diflubenzuron
80220	Dimethoate
80230	Emamectin
80240	Esfenvalerate
80250	Etofenprox

80260	Etoxazole
80270	Fatty acids C7 to C20
80280	Fatty acids C7-C18 and C18 unsaturated potassium salts (CAS 67701-09-1)
80290	Fatty acids C8-C10 methyl esters (CAS 85566-26-3)
80300	FEN 560 (Fenugreek seed powder)
80310	Fenoxycarb
80320	Fipronil
80330	Flonicamid (IKI-220)
80340	Flubendiamide
80350	Formetanate
80360	Helicoverpa armigera nucleopolyhedrovirus (HearNPV)
80370	Hydrolysed proteins
80380	Imidacloprid
80390	Indoxacarb
80400	Kieselgur (diatomaceous earth)
80410	lambda-Cyhalothrin
80420	Lauric acid (CAS 143-07-7)
80430	Lecanicillium muscarium (formerly Verticillium lecanii) strain Ve6
80440	Lufenuron
80450	Magnesium phosphide
80460	Malathion
80470	Maltodextrin
80480	Metaflumizone
80490	Metarhizium anisopliae var. anisopliae strain BIPESCO 5/F52
80500	Methiocarb (aka mercaptodimethur)
80510	Methomyl
80520	Methoxyfenozide
80530	Methyl decanoate (CAS 110-42-9)
80540	Methyl octanoate (CAS 111-11-5)
80550	Milbemectin
80560	Oleic acid (CAS 112-80-1)
80570	Orange oil
80580	Oxamyl
80590	Paecilomyces fumosoroseus Apopka strain 97
80600	Paecilomyces fumosoroseus strain Fe9901
80610	Paraffin oil/(CAS 64742-46-7)
80620	Paraffin oil/(CAS 72623-86-0)
80630	Paraffin oil/(CAS 8042-47-5)
80640	Paraffin oil/(CAS 97862-82-3)
80650	Pelargonic acid (CAS 112-05-0)
80660	Phosmet
80670	Phosphane
80680	Pirimicarb
80690	Pirimiphos-methyl
80700	Polybutene

80710	Pymetrozine
80720	Pyrethrins
80730	Pyridalyl
80740	Pyriproxyfen
80750	Spinetoram
80760	Spinosad
80770	Spirotetramat
80780	Spodoptera exigua nuclear polyhedrosis virus
80790	Spodoptera littoralis nucleopolyhedrovirus
80800	Sulfuryl fluoride
80810	tau-Fluvalinate
80820	Tebufenozide
80830	Teflubenzuron
80840	Tefluthrin
80850	Thiacloprid
80860	Thiamethoxam
80870	Triflumuron
80880	Urea
80890	zeta-Cypermethrin
Molluscicides	
90010	Ferric phosphate
90020	Metaldehyde
Nematicides	
100010	Bacillus firmus I-1582
100020	Dazomet
100030	Ethoprophos
100040	Fenamiphos (aka phenamiphos)
100050	Fosthiazate
100060	Paecilomyces lilacinus strain 251
Plant activator	
110010	Acibenzolar-S-methyl (benzothiadiazole)
Plant growth regulators	
120010	1,4-Dimethylnaphthalene
120020	1-Decanol
120030	1-Methyl-cyclopropene
120040	1-Naphthylacetamide (1-NAD)
120050	1-Naphthylacetic acid (1-NAA)
120060	6-Benzyladenine
120070	Carvone
120080	Chlormequat
120090	Chlorpropham
120100	Daminozide
120110	Ethephon
120120	Ethylene
120130	Forchlorfenuron

120140	Gibberellic acid
120150	Gibberellin
120160	Imazaquin
120170	Indolylbutyric acid
120180	Maleic hydrazide
120190	Mepiquat
120200	Paclobutrazol
120210	Prohexadione
120220	S-Absciscic acid
120230	Sea-algae extract (formerly sea-algae extract and seaweeds)
120240	Sintofen (aka Cintofen)
120250	Sodium 5-nitroguaiacolate
120260	Sodium o-nitrophenolate
120270	Sodium p-nitrophenolate
120280	Sodium silver thiosulphate
120290	Trinexapac (aka cimetacarb ethyl)
Repellants	
130010	Aluminium ammonium sulphate
130020	Aluminium silicate (aka kaolin)
130030	Blood meal
130040	Calcium carbide
130050	Denathonium benzoate
130060	Fat distillation residues
130070	Garlic extract
130080	Methyl nonyl ketone
130090	Pepper
130100	Plant oils / Clove oil
130110	Quartz sand
130120	Sodium aluminium silicate
Rodenticides	
140010	Bromadiolone
140020	Calcium phosphide
140030	Difenacoum
140040	Zinc phosphide
Unknown	
150010	Ammonium acetate
150020	Bacillus thuringiensis subsp. Aizawai strains ABTS-1857 and GC-91
150030	Bacillus thuringiensis subsp. Israeliensis (serotype H-14) strain AM65-52
150040	Bacillus thuringiensis subsp. Kurstaki strains ABTS 351, PB 54, SA 11, SA12 and EG 2348
150050	Bacillus thuringiensis subsp. Tenebrionis strain NB 176 (TM 14 1)
150060	Calcium carbonate
150070	Chitosan hydrochloride
150080	Equisetum arvense L.
150090	Ethanol
150100	Ipconazole

150110	Limestone
150120	Plant oils / Spear mint oil
150130	Plant oils/ Rape seed oil
150140	Potassium hydrogen carbonate
150150	Pseudomonas sp. Strain DSMZ 13134
150160	Repellents by smell of animal or plant origin/ fish oil
150170	Repellents by smell of animal or plant origin/ sheep fat
150180	Repellents by smell of animal or plant origin/ tall oil crude
150190	Repellents by smell of animal or plant origin/ tall oil pitch
150200	Sucrose
150210	Trichoderma harzianum strains T-22 and ITEM 908
150220	Trimethylamine hydrochloride

Table Z8: Nutrient Balance

Table Z8: Nutrient Balances consists of a number of sub-tables, of which some are extensions of existing tables in the RICA Farm Return (Table I, Table J, and Table K)

Table Z8(1) 'Nutrient Balance - Livestock' is an extension of Table J where next to capturing values, weights (in quintals in terms of live weight) are recorded.

Table Z8(1): Nutrient Balance - Livestock

		Columns			
		Opening Quantity	Closing Quantity.	Purchased Quantity	Sales Quantity
Category		OQ	CQ	P	S
LS Livestock					
100	Equine	Z8_LS_100_OQ	Z8_LS_100_CQ	Z8_LS_100_P	Z8_LS_100_S
210	Bovine animals, under one year old, male and female	Z8_LS_210_OQ	Z8_LS_210_CQ	Z8_LS_210_P	Z8_LS_210_S
220	Bovine animals, one but less than two years old, male	Z8_LS_220_OQ	Z8_LS_220_CQ	Z8_LS_220_P	Z8_LS_220_S
230	Bovine animals, one but less than two years old, female	Z8_LS_230_OQ	Z8_LS_230_CQ	Z8_LS_230_P	Z8_LS_230_S
240	Male bovine animals, two years old and over	Z8_LS_240_OQ	Z8_LS_240_CQ	Z8_LS_240_P	Z8_LS_240_S
251	Breeding heifers	Z8_LS_251_OQ	Z8_LS_251_CQ	Z8_LS_251_P	Z8_LS_251_S
252	Heifers for fattening	Z8_LS_252_OQ	Z8_LS_252_CQ	Z8_LS_252_P	Z8_LS_252_S
261	Dairy cows	Z8_LS_261_OQ	Z8_LS_261_CQ	Z8_LS_261_P	Z8_LS_261_S
262	Buffalo cows	Z8_LS_262_OQ	Z8_LS_262_CQ	Z8_LS_262_P	Z8_LS_262_S
269	Other cows	Z8_LS_269_OQ	Z8_LS_269_CQ	Z8_LS_269_P	Z8_LS_269_S
311	Ewes, Breeding females	Z8_LS_311_OQ	Z8_LS_311_CQ	Z8_LS_311_P	Z8_LS_311_S
319	Other sheep	Z8_LS_319_OQ	Z8_LS_319_CQ	Z8_LS_319_P	Z8_LS_319_S
321	Goats, breeding females	Z8_LS_321_OQ	Z8_LS_321_CQ	Z8_LS_321_P	Z8_LS_321_S
329	Other goats	Z8_LS_329_OQ	Z8_LS_329_CQ	Z8_LS_329_P	Z8_LS_329_S
410	Piglets having a live weight of under 20 kilograms	Z8_LS_410_OQ	Z8_LS_410_CQ	Z8_LS_410_P	Z8_LS_410_S
420	Breeding sows weighing 50 kilograms and over	Z8_LS_420_OQ	Z8_LS_420_CQ	Z8_LS_420_P	Z8_LS_420_S
491	Pigs for fattening	Z8_LS_491_OQ	Z8_LS_491_CQ	Z8_LS_491_P	Z8_LS_491_S
499	Other pigs	Z8_LS_499_OQ	Z8_LS_499_CQ	Z8_LS_499_P	Z8_LS_499_S
510	Poultry - broilers	Z8_LS_510_OQ	Z8_LS_510_CQ	Z8_LS_510_P	Z8_LS_510_S
520	Laying hens	Z8_LS_520_OQ	Z8_LS_520_CQ	Z8_LS_520_P	Z8_LS_520_S
530	Other poultry	Z8_LS_530_OQ	Z8_LS_530_CQ	Z8_LS_530_P	Z8_LS_530_S
610	Rabbits, breeding females	Z8_LS_610_OQ	Z8_LS_610_CQ	Z8_LS_610_P	Z8_LS_610_S
699	Other rabbits	Z8_LS_699_OQ	Z8_LS_699_CQ	Z8_LS_699_P	Z8_LS_699_S
900	Other animals	Z8_LS_900_OQ	Z8_LS_900_CQ	Z8_LS_900_P	Z8_LS_900_S

Table Z8(2) 'Nutrient Balance - Animal Products' is an extension of Table K where for some categories the column Protein Content is added.

Table Z8(2): Nutrient Balance - Animal Products

		Column
		Protein Content (%)
Category		PC
AP Animal Products		
261	Cow's Milk	Z8_AP_261_PC
262	Buffalo Cow's Milk	Z8_AP_262_PC
311	Sheep's Milk	Z8_AP_311_PC
321	Goat's Milk	Z8_AP_321_PC

Table Z8 (3) Nutrient Balance - Crops is an extension of Table I where next to capturing values, weights (in quintals) are recorded.

Table Z8(3): Nutrient Balance - Crops

		Columns		
		Opening Quantity	Purchased Quantity	Closing Quantity
Category		OQ	PQ	CQ
CR Crops				
10110	Common wheat and spelt	Z8_CR_10110_OQ		Z8_CR_10110_CQ
10120	Durum wheat	Z8_CR_10120_OQ		Z8_CR_10120_CQ
10130	Rye	Z8_CR_10130_OQ		Z8_CR_10130_CQ
10140	Barley	Z8_CR_10140_OQ		Z8_CR_10140_CQ
10150	Oats	Z8_CR_10150_OQ		Z8_CR_10150_CQ
10160	Grain maize	Z8_CR_10160_OQ		Z8_CR_10160_CQ
10170	Rice	Z8_CR_10170_OQ		Z8_CR_10170_CQ
10190	Other cereals for the production of grain	Z8_CR_10190_OQ		Z8_CR_10190_CQ
10210	Peas, field beans and sweet lupines	Z8_CR_10210_OQ		Z8_CR_10210_CQ
10220	Lentils, chickpeas and vetches	Z8_CR_10220_OQ		Z8_CR_10220_CQ
10290	Other protein crops	Z8_CR_10290_OQ		Z8_CR_10290_CQ
10300	Potatoes (including early potatoes and seed potatoes)	Z8_CR_10300_OQ		Z8_CR_10300_CQ
10310	Potatoes for starch	Z8_CR_10310_OQ		Z8_CR_10310_CQ
10390	Other potatoes	Z8_CR_10390_OQ		Z8_CR_10390_CQ
10400	Sugar beet (excluding seed)	Z8_CR_10400_OQ		Z8_CR_10400_CQ
10500	Fodder roots and brassicas (excluding seed)	Z8_CR_10500_OQ		Z8_CR_10500_CQ
10601	Tobacco	Z8_CR_10601_OQ		Z8_CR_10601_CQ
10602	Hops	Z8_CR_10602_OQ		Z8_CR_10602_CQ
10603	Cotton	Z8_CR_10603_OQ		Z8_CR_10603_CQ
10604	Rape and turnip rape	Z8_CR_10604_OQ		Z8_CR_10604_CQ
10605	Sunflower	Z8_CR_10605_OQ		Z8_CR_10605_CQ
10606	Soya	Z8_CR_10606_OQ		Z8_CR_10606_CQ

10607	Linseed (oil flax)	Z8_CR_10607_OQ		Z8_CR_10607_CQ
10608	Other oil seed crops	Z8_CR_10608_OQ		Z8_CR_10608_CQ
10609	Flax	Z8_CR_10609_OQ		Z8_CR_10609_CQ
10610	Hemp	Z8_CR_10610_OQ		Z8_CR_10610_CQ
10611	Other fibre plants	Z8_CR_10611_OQ		Z8_CR_10611_CQ
10612	Aromatic plants, medical and culinary plants	Z8_CR_10612_OQ		Z8_CR_10612_CQ
10613	Sugar cane	Z8_CR_10613_OQ		Z8_CR_10613_CQ
10690	Other industrial crops not mentioned elsewhere	Z8_CR_10690_OQ		Z8_CR_10690_CQ
10731	Cauliflower and broccoli	Z8_CR_10731_OQ		Z8_CR_10731_CQ
10732	Lettuce	Z8_CR_10732_OQ		Z8_CR_10732_CQ
10733	Tomatoes	Z8_CR_10733_OQ		Z8_CR_10733_CQ
10734	Sweet corn	Z8_CR_10734_OQ		Z8_CR_10734_CQ
10735	Onions	Z8_CR_10735_OQ		Z8_CR_10735_CQ
10736	Garlic	Z8_CR_10736_OQ		Z8_CR_10736_CQ
10737	Carrots	Z8_CR_10737_OQ		Z8_CR_10737_CQ
10738	Strawberries	Z8_CR_10738_OQ		Z8_CR_10738_CQ
10739	Melons	Z8_CR_10739_OQ		Z8_CR_10739_CQ
10790	Other	Z8_CR_10790_OQ		Z8_CR_10790_CQ
10830	Flower bulbs, corms and tubers	Z8_CR_10830_OQ		Z8_CR_10830_CQ
10840	Cut flowers and flower buds	Z8_CR_10840_OQ		Z8_CR_10840_CQ
10850	Flowering and ornamental plants.	Z8_CR_10850_OQ		Z8_CR_10850_CQ
10910	Temporary grass (hay and grass)	Z8_CR_10910_OQ		Z8_CR_10910_CQ
10921	Green maize	Z8_CR_10921_OQ		Z8_CR_10921_CQ
10922	Leguminous plants	Z8_CR_10922_OQ		Z8_CR_10922_CQ
10923	Other plants harvested green but not mentioned elsewhere	Z8_CR_10923_OQ		Z8_CR_10923_CQ
11000	Arable land seed and seedlings	Z8_CR_11000_OQ		Z8_CR_11000_CQ
11100	Other arable land crops	Z8_CR_11100_OQ		Z8_CR_11100_CQ
30100	Pasture and meadow, excluding rough grazing (hay and grass)	Z8_CR_30100_OQ		Z8_CR_30100_CQ
30200	Rough grazing (hay and grass)	Z8_CR_30200_OQ		Z8_CR_30200_CQ
40111	Apples	Z8_CR_40111_OQ		Z8_CR_40111_CQ
40112	Pears	Z8_CR_40112_OQ		Z8_CR_40112_CQ
40113	Peaches and nectarines	Z8_CR_40113_OQ		Z8_CR_40113_CQ
40114	Other fruit of temperate zones	Z8_CR_40114_OQ		Z8_CR_40114_CQ
40115	Fruit of subtropical or tropical zones	Z8_CR_40115_OQ		Z8_CR_40115_CQ
40120	Berry species	Z8_CR_40120_OQ		Z8_CR_40120_CQ
40130	Nuts	Z8_CR_40130_OQ		Z8_CR_40130_CQ
40210	Oranges	Z8_CR_40210_OQ		Z8_CR_40210_CQ
40220	Tangerines, mandarins, clementine and similar small fruit	Z8_CR_40220_OQ		Z8_CR_40220_CQ
40230	Lemons	Z8_CR_40230_OQ		Z8_CR_40230_CQ
40290	Other citrus fruit	Z8_CR_40290_OQ		Z8_CR_40290_CQ
40310	Table olives	Z8_CR_40310_OQ		Z8_CR_40310_CQ
40320	Olives for oil production (sold in the	Z8_CR_40320_OQ		Z8_CR_40320_CQ

	form of fruit)			
40330	Olive oil	Z8_CR_40330_OQ		Z8_CR_40330_CQ
40340	Olive by-products	Z8_CR_40340_OQ		Z8_CR_40340_CQ
40411	Quality wine with protected designation of origin (PDO)	Z8_CR_40411_OQ		Z8_CR_40411_CQ
40412	Quality wine with protected geographical indication (PGI)	Z8_CR_40412_OQ		Z8_CR_40412_CQ
40420	Other wines	Z8_CR_40420_OQ		Z8_CR_40420_CQ
40430	Table grapes	Z8_CR_40430_OQ		Z8_CR_40430_CQ
40440	Raisins	Z8_CR_40440_OQ	Z8_CR_40440_PQ	Z8_CR_40440_CQ
40451	Grapes for quality wine with protected designation of origin (PDO)	Z8_CR_40451_OQ	Z8_CR_40451_PQ	Z8_CR_40451_CQ
40452	Grapes for quality wine with protected geographical indication (PGI)	Z8_CR_40452_OQ	Z8_CR_40452_PQ	Z8_CR_40452_CQ
40460	Grapes for other wines	Z8_CR_40460_OQ	Z8_CR_40460_PQ	Z8_CR_40460_CQ
40470	Miscellaneous products of vines: grape must, juice, brandy, vinegar and others produced on the farm	Z8_CR_40470_OQ		Z8_CR_40470_CQ
40480	Vine by-products (marc, lees)	Z8_CR_40480_OQ		Z8_CR_40480_CQ
40500	Nurseries	Z8_CR_40500_OQ		Z8_CR_40500_CQ
40600	Other permanent crops	Z8_CR_40600_OQ		Z8_CR_40600_CQ
40610	Of which christmas trees	Z8_CR_40610_OQ		Z8_CR_40610_CQ
40700	Permanent crops under glass	Z8_CR_40700_OQ		Z8_CR_40700_CQ
40800	Growth of young plantations	Z8_CR_40800_OQ		Z8_CR_40800_CQ
60000	Mushrooms	Z8_CR_60000_OQ		Z8_CR_60000_CQ
90310	Straw	Z8_CR_90310_OQ		Z8_CR_90310_CQ
90320	Sugar beet tops	Z8_CR_90320_OQ		Z8_CR_90320_CQ
90330	Other by-products	Z8_CR_90330_OQ		Z8_CR_90330_CQ
90900	Other	Z8_CR_90900_OQ		Z8_CR_90900_CQ

Table Z8(4): Nutrient Balance – Other

Quantity is expressed in quintals with the exemption of slurry, which is expressed in m³.

		Columns			
		Opening Quantity	Closing Quantity	Purchase Quantity	Sales Quantity
Category		OQ	CQ	P	S
PU Purchased concentrates					
10010	Dairy Ration	Z8_PU_10010_OQ	Z8_PU_10010_CQ	Z8_PU_10010_P	
10020	Beef Ration	Z8_PU_10020_OQ	Z8_PU_10020_CQ	Z8_PU_10020_P	
10040	Sheep Ration	Z8_PU_10040_OQ	Z8_PU_10040_CQ	Z8_PU_10040_P	
10050	Rolled Barley	Z8_PU_10050_OQ	Z8_PU_10050_CQ	Z8_PU_10050_P	
10080	Milk Replacer	Z8_PU_10080_OQ	Z8_PU_10080_CQ	Z8_PU_10080_P	
10090	Wheat	Z8_PU_10090_OQ	Z8_PU_10090_CQ	Z8_PU_10090_P	
10160	Maize Gluten	Z8_PU_10160_OQ	Z8_PU_10160_CQ	Z8_PU_10160_P	
10180	Oats	Z8_PU_10180_OQ	Z8_PU_10180_CQ	Z8_PU_10180_P	

10190	Other	Z8_PU_10190_OQ	Z8_PU_10190_CQ	Z8_PU_10190_P	
PF - Purchased forage feed					
20010	Hay	Z8_PF_20010_OQ	Z8_PF_20010_CQ	Z8_PF_20010_P	
20020	Silage	Z8_PF_20020_OQ	Z8_PF_20020_CQ	Z8_PF_20020_P	
20030	Molasses	Z8_PF_20030_OQ	Z8_PF_20030_CQ	Z8_PF_20030_P	
20040	Straw (feed)	Z8_PF_20040_OQ	Z8_PF_20040_CQ	Z8_PF_20040_P	
20050	Maize Silage	Z8_PF_20050_OQ	Z8_PF_20050_CQ	Z8_PF_20050_P	
20060	Beet Collars	Z8_PF_20060_OQ	Z8_PF_20060_CQ	Z8_PF_20060_P	
20070	Arable Silage	Z8_PF_20070_OQ	Z8_PF_20070_CQ	Z8_PF_20070_P	
20090	Turnips	Z8_PF_20090_OQ	Z8_PF_20090_CQ	Z8_PF_20090_P	
20100	Mangolds	Z8_PF_20100_OQ	Z8_PF_20100_CQ	Z8_PF_20100_P	
20110	Fodder Beet	Z8_PF_20110_OQ	Z8_PF_20110_CQ	Z8_PF_20110_P	
20120	Kale	Z8_PF_20120_OQ	Z8_PF_20120_CQ	Z8_PF_20120_P	
20130	Rape	Z8_PF_20130_OQ	Z8_PF_20130_CQ	Z8_PF_20130_P	
20140	Rye	Z8_PF_20140_OQ	Z8_PF_20140_CQ	Z8_PF_20140_P	
20150	Whey	Z8_PF_20150_OQ	Z8_PF_20150_CQ	Z8_PF_20150_P	
20160	Skim	Z8_PF_20160_OQ	Z8_PF_20160_CQ	Z8_PF_20160_P	
20170	Wet Grains	Z8_PF_20170_OQ	Z8_PF_20170_CQ	Z8_PF_20170_P	
20180	Wet Pulp	Z8_PF_20180_OQ	Z8_PF_20180_CQ	Z8_PF_20180_P	
20190	Carrots	Z8_PF_20190_OQ	Z8_PF_20190_CQ	Z8_PF_20190_P	
20200	Cabbages	Z8_PF_20200_OQ	Z8_PF_20200_CQ	Z8_PF_20200_P	
20210	Potatoes	Z8_PF_20210_OQ	Z8_PF_20210_CQ	Z8_PF_20210_P	
20220	Crimped wheat	Z8_PF_20220_OQ	Z8_PF_20220_CQ	Z8_PF_20220_P	
20230	Typhon	Z8_PF_20230_OQ	Z8_PF_20230_CQ	Z8_PF_20230_P	
20240	Other	Z8_PF_20240_OQ	Z8_PF_20240_CQ	Z8_PF_20240_P	
PS - Purchase seed					
30010	Grass			Z8_PS_30010_P	
30020	Crops			Z8_PS_30020_P	
30030	Other			Z8_PS_30030_P	
AN - Manure					
40010	Cattle manure			Z8_AN_40010_P	Z8_AN_40010_S
40020	Pig manure			Z8_AN_40020_P	Z8_AN_40020_S
40030	Poultry litter manure			Z8_AN_40030_P	Z8_AN_40030_S
40040	Other manure			Z8_AN_40040_P	Z8_AN_40040_S
SL - Slurry					
50010	Cattle slurry			Z8_SL_50010_P	Z8_SL_50010_S
50020	Pig slurry			Z8_SL_50020_P	Z8_SL_50020_S
50030	Poultry litter slurry			Z8_SL_50030_P	Z8_SL_50030_S
50040	Other slurry			Z8_SL_50040_P	Z8_SL_50040_S

In case of Manure and Slurry, purchased quantity means quantities imported into the farm. Likewise, sold quantity refers to manure and slurry exported from the farm.

Table Z9: Energy

		Columns										
									Capital Investment			
	Category	Quan.	Costs	Usage	Share of usage	Prod.	Sales	Price	Own	Loan	Subs.	Share
		Q	C	U	SU	P	S	UP	CO	CL	CS	SH
EU Direct Use of Energy for Production												
1010	Liquid fuel	Z9_EU_1010_Q	Z9_EU_1010_C	Z9_EU_1010_U	Z9_EU_1010_SU							
1020	Other fossil liquid	Z9_EU_1020_Q	Z9_EU_1020_C	Z9_EU_1020_U	Z9_EU_1020_SU							
1030	Coal	Z9_EU_1030_Q	Z9_EU_1030_C	Z9_EU_1030_U	Z9_EU_1030_SU							
1050	Other fossil solid	Z9_EU_1050_Q	Z9_EU_1050_C	Z9_EU_1050_U	Z9_EU_1050_SU							
1060	Fossil gas	Z9_EU_1060_Q	Z9_EU_1060_C	Z9_EU_1060_U	Z9_EU_1060_SU							
1040	Firewood	Z9_EU_1040_Q	Z9_EU_1040_C	Z9_EU_1040_U	Z9_EU_1040_SU							
1070	Electricity	Z9_EU_1070_Q	Z9_EU_1070_C	Z9_EU_1070_U	Z9_EU_1070_SU							
1080	On-farm renewable for electricity	Z9_EU_1080_Q	Z9_EU_1080_C	Z9_EU_1080_U	Z9_EU_1080_SU							
1090	On-farm renewable for heat	Z9_EU_1090_Q	Z9_EU_1090_C	Z9_EU_1090_U	Z9_EU_1090_SU							
1100	On-farm renewable for fuel	Z9_EU_1100_Q	Z9_EU_1100_C	Z9_EU_1100_U	Z9_EU_1100_SU							

		Columns										
								Capital Investment				
		Quan.	Costs	Usage	Share of usage	Prod.	Sales quantity	Sales value	Own	Loan	Subs.	Share
	Category	Q	C	U	SU	P	SQ	SV	CO	CL	CS	SH
EP On-farm renewable energy production												
2010	Electricity from biomass					Z9_EP_2010_P	Z9_EP_2010_SQ	Z9_EP_2010_SV	Z9_EP_2010_CO	Z9_EP_2010_CL	Z9_EP_2010_CS	Z9_EP_2010_SH
2020	Heat from biomass					Z9_EP_2020_P	Z9_EP_2020_SQ	Z9_EP_2020_SV	Z9_EP_2020_CO	Z9_EP_2020_CL	Z9_EP_2020_CS	Z9_EP_2020_SH
2030	Fuel from biomass					Z9_EP_2030_P	Z9_EP_2030_SQ	Z9_EP_2030_SV	Z9_EP_2030_CO	Z9_EP_2030_CL	Z9_EP_2030_CS	Z9_EP_2030_SH
2040	Electricity from geothermal					Z9_EP_2040_P	Z9_EP_2040_SQ	Z9_EP_2040_SV	Z9_EP_2040_CO	Z9_EP_2040_CL	Z9_EP_2040_CS	
2050	Heat from geothermal					Z9_EP_2050_P	Z9_EP_2050_SQ	Z9_EP_2050_SV	Z9_EP_2050_CO	Z9_EP_2050_CL	Z9_EP_2050_CS	
2060	Electricity from solar					Z9_EP_2060_P	Z9_EP_2060_SQ	Z9_EP_2060_SV	Z9_EP_2060_CO	Z9_EP_2060_CL	Z9_EP_2060_CS	
2070	Heat from solar					Z9_EP_2070_P	Z9_EP_2070_SQ	Z9_EP_2070_SV	Z9_EP_2070_CO	Z9_EP_2070_CL	Z9_EP_2070_CS	
2080	Electricity from wind					Z9_EP_2080_P	Z9_EP_2080_SQ	Z9_EP_2080_SV	Z9_EP_2080_CO	Z9_EP_2080_CL	Z9_EP_2080_CS	

Description of the categories:

Category	Description
Group of information EU - Direct Use of Energy for Production	
Liquid fuel	Diesel, gasoline
Other liquid	Other fossil liquids include all liquid hydrocarbons from non-renewable sources not mentioned elsewhere.
Coal	
Firewood	
Other solid	Other fossil solids include all solid hydrocarbons from non-renewable sources (lignite, etc.) not mentioned elsewhere.
Fossil gas	Fossil gas includes all gasiform hydrocarbons from non-renewable sources (natural gas, propane, etc.).
Electricity	Electricity includes electricity produced from non-renewable sources.
On-farm renewable for electricity	Electricity produced and used on the farm (wind, biomass, pv).
On-farm renewable for heat	Energy produced and used on the farm (biomass, geothermal, solar)
On-farm renewable for fuel	Fuel produced and used on the farm (biodiesel, ethanol).
Group of information EP - On-farm renewable energy production	
Electricity from biomass	Include all biomass (dedicated, firewood, by-product, biogas) used for electricity. CHP use should be separated!
Heat from biomass	Include all biomass (dedicated, firewood, by-product, biogas) used for heat. CHP use should be separated!
Fuel from biomass	Include all biomass (dedicated, firewood, by-product, biogas) used for fuel (liquid or gas).
Electricity from geothermal	
Heat from geothermal	
Electricity from solar	Include PV use.
Heat from solar	Include solar units dedicated for heat production.
Electricity from wind	

Description of the columns:

Column	Description
Group of information EU - Direct Use of Energy for Production	
Q	<p>Amount of Energy used</p> <p>Enter the quantities of the energy used for production in the following units: Liquid fuel = MJ Other fossil liquid = litre Coal = tonne Firewood = tonne Other fossil solid = tonne Fossil gas = m³ Electricity = kWh On-farm renewable electricity = kWh On-farm renewable for heat = MJ On-farm renewable for fuel = MJ</p> <p>For the determination of energy used in MJ please use the following conversion rates. Energy conversion (approx.): 1 litre biodiesel = 33 MJ 1 litre bio gasoline (ethanol) = 21 MJ 1 m3 biogas (=0.93 m3 natural gas) = 31.62 MJ For the determination of the energy used in MJ in case of geothermal heating one might use the following equation: $Q = \frac{c \cdot m \cdot T}{10^6}$</p>

		<p>where</p> <p>c=specific heat of water = 4180 Joule/kg*K</p> <p>m=mass of water in kg (mass of the water passing through the system during the accounting year)</p> <p>T= is the change in temperature of water (for example if the temperature of the inflow water is 40 °C and the temperature of outflow water is 25 °C then T= 15).</p>
C	Costs of Energy use	To be indicated in national currency. Energy produced and used on the farm valued at on-farm cost.
U	Usage	<p>Most important use should include only one usage, with the largest share in terms of quantity which is not necessary the same as the share of cost. Code to be used:</p> <p>1 = heating</p> <p>2 = cooling</p> <p>3 = lighting</p> <p>4 = field operations</p> <p>5 = transportation</p> <p>6 = irrigation</p> <p>7 = post-harvest operations</p> <p>8 = other</p>
SU	Share of usage	<p>The share should be based on the amount of energy used, which is not necessary the same as the share of cost. Codes to be used:</p> <p>1 = 0-19%</p> <p>2 = 20-39%</p> <p>3 = 40-59%</p> <p>4 = 60-79%</p> <p>5 = 80-100%</p>
Group of information EP - On-farm renewable energy production		
P	Production	<p>The unit is MJ for all categories. For the determination of energy production in MJ please use the following conversion rates.</p> <p>Energy conversion (approx.):</p> <p>1 kWh electricity = 3.6 MJ</p> <p>1 litre biodiesel = 33 MJ</p> <p>1 litre bio gasoline (ethanol) = 21 MJ</p> <p>1 m3 biogas (=0.93 m3 natural gas) = 31.62 MJ</p> <p>1 kg straw = 16 MJ</p> <p>1 kg sunflower stalk = 13 MJ</p> <p>1 kg corn stalk = 12 MJ</p> <p>1 kg wood = 18.5 MJ</p> <p>For the determination of the energy used in MJ in case of geothermal heating one might use the following equation:</p> $Q = \frac{c \cdot m \cdot T}{10^6}$ <p>where</p> <p>c=specific heat of water = 4180 Joule/kg*K</p> <p>m=mass of water in kg (mass of the water passing through the system during the accounting year)</p> <p>T= is the change in temperature of water (for example if the temperature of the inflow water is 40 °C and the temperature of outflow water is 25 °C then T= 15)</p>
SQ	Sales quantity	Measured in MJ
SV	Sales value	<p>Total value of sales of products in stock at the start of the accounting year and produced during the year. Any compensation payments (e.g. insurance payments) during the accounting year are to be added to the total for sales of the products concerned wherever they can be allocated to the production of such products. Otherwise they are entered in Table I "CROPS" under code 90900 "Other". Grants and subsidies received for products during the accounting year are not included in the total for sales; they are entered in Table M "SUBSIDIES" in the appropriate category. Expressed in national currency unit.</p>

CO	Own Capital Investment	Indicate the amount of own capital for the investment (in the last five years) of on-farm renewable energy production in national currency units.
CL	Capital Investment Loan	Indicate the amount of loan for the investment (in the last five years) of on-farm renewable energy production in national currency units.
CS	Capital Investment Subsidy	Indicate the amount of subsidy for the investment (in the last five years) of on-farm renewable energy production in national currency units.
SH	Share of External Feedstock	Percentage of external raw material (purchased, acquired for free, not farm produced) in proportion to the quantity of the total raw material.

On-farm renewable energy production considered as other gainful activity (and must be recorded in table Z9) in case either the resources of the holding (area, building, machinery, etc.) or the products of the holding are used. For example if the solar panels are on agricultural buildings than it is considered as OGA, but if solar panels are on the roof of the farmer's house then it is considered as off-farm income and therefore excluded from FADN accounts. (The farmer's household own consumption must be excluded.)

Table Z10: Water

			Groups			
Columns			WU - Water Use and Storage		IR - Irrigation	
			Categories			
			Source	End Use	Water dist. network	Water Price
	Code	1000	2000	3000	4000	
	Type	T	Z10_WU_1000_T	Z10_WU_2000_T		
	Water Meter	WM	Z10_WU_1000_WM	Z10_WU_2000_WM		
	Cons. Estim.	CE	Z10_WU_1000_CE	Z10_WU_2000_CE		
	Energy Dep.	ED			Z10_IR_3000_ED	
Netw. Org.	NO	Z10_IR_3000_NO				
Water Pay.	WP					
Prop.Fee	PF				Z10_IR_4000_WP Z10 IR 4000 PF	

Description of the categories:

Category	Column	Notes
Group of information WU - Water Usage and storage		
Source	Type Z10_WU_1000_T	Allowed values are (multiple values are allowed): 1 = Rainfall storage 2 = Natural surface watercourses 3 = Artificial surface watercourses 4 = Groundwater 5 = Mains water supply 6 = Other 7 = Not specified (In case the farmer has irrigation but does not want to answer)
	Water Meter Z10_WU_1000_WM	The consumption record by a water meter in m ³ . Multiple values are allowed.
	Consumption Estimation Z10_WU_1000_CE	Estimate of the real water consumption in m ³ . Multiple values are allowed.
End Use	Type Z10_WU_2000_T	Allowed values are (multiple values are allowed) 1 = Livestock 2 = Irrigation 3 = Other 4 = Not specified (In case the farmer has irrigation but does not want to answer)
	Water Meter Z10_WU_2000_WM	The consumption record by a water meter in m ³ . Multiple values are allowed.
	Consumption Estimation Z10_WU_2000_CE	Estimate of the real water consumption in m ³ . Multiple values are allowed.
Group of information IR - Irrigation		
Water distribution network	Energy Dependence Z10_IR_3000_ED	Water distribution network energy dependence? Codes to be used: 1 = Yes 2 = No If irrigation system is gravity-fed without energy consumption, No. In other cases, energy is used to provide access to water and/or irrigation, pumping included (the answer is Yes).

	<i>Network Organization</i> <i>Z10_IR_3000_NO</i>	Water distribution network is managed by any organization? Codes to be used: 1 = Yes 2 = No Irrigation Communities are the organizations where the farmers gather with the aim to conduct a self-management of the irrigation in order to allocate water in a more efficient, methodical and equitable way. The reason why irrigation water users shall gather in Irrigators Communities is conditioned by the existence of common properties and related equipment, such as: - Water (one or several common outlets) - Transport and distribution hydraulic networks - Right-of-Ways caused by the works which preferably should be managed, operated and financed in an associative form.
Water Price	<i>Water payment</i> <i>Z10_IR_4000_WP</i>	Is water paid for? Codes to be used: 1 = Yes 2 = No
	<i>Proportional Fee</i> <i>Z10_IR_4000_PF</i>	Is the fee proportional to the consumption? Codes to be used: 1 = Yes 2 = No Some irrigation systems are based on unregulated and private abstractions of water, and water is not paid. In other systems, water is paid by hectare and no by m3, so payment is not proportional to consumption. In others water fee is proportional to the consumption.