

EAA Inventory 2015

Methodological inventory/questionnaire on the compiling of Economic Accounts for Agriculture

Questionnaire identification

Country	Switzerland
Institution	Federal Statistical Office
Author	Franz Murbach
Date	Wednesday, 31 May 2017

The Economic Accounts for Agriculture (EAA) provide detailed information on income from agricultural activity. The methods are laid down in the regulation (EC) 138/2004 of the European Parliament and of the Council. Member States are requested to provide an inventory on how the data are compiled.

EAA Inventory 2015

PART A - GENERAL FRAMEWORK	2
A1 INSTITUTIONAL FRAMEWORK	2
A2 COMPILATION OF THE EAA: GENERAL REMARKS	3
A3 DATA USERS AND CONFIDENTIALITY	3
PART B - STANDARD QUESTIONS – QUICK GUIDE	5
B1 DATA SOURCES	5
B2 LEVEL OF DETAIL.....	5
B3 CALCULATION PROCEDURE	5
B4 ADJUSTMENTS	5
B5 ESTIMATIONS	5
B6 NUMERICAL EXAMPLE.....	5
B7 SUBSIDIES AND TAXES ON PRODUCTS	6
B8 PROVISIONAL AND SEMI-DEFINITIVE ACCOUNTS AND AGRICULTURAL INCOME INDEX VERSUS DEFINITIVE ACCOUNTS	6
B9 UNIT VALUES.....	6
PART C - COMPONENTS OF THE PRODUCTION ACCOUNT: OUTPUT	8
C1 GENERAL.....	8
C2 INDIVIDUAL ITEMS.....	8
PART D - COMPONENTS OF THE PRODUCTION ACCOUNT: INTERMEDIATE CONSUMPTION	58
D1 GENERAL.....	58
D2 INDIVIDUAL INTERMEDIATE CONSUMPTION ITEMS.....	60
D3 CALCULATION OF NON-DEDUCTIBLE VAT	75
PART E - COMPONENTS OF THE GENERATION OF INCOME ACCOUNT	76
E1 COMPENSATION OF EMPLOYEES	76
E2 OTHER TAXES ON PRODUCTION	78
E3 OTHER SUBSIDIES ON PRODUCTION.....	81
PART F - COMPONENTS OF THE ENTREPRENEURIAL INCOME ACCOUNT	86
F1 RENTS AND OTHER REAL ESTATE RENTAL CHARGES TO BE PAID	86
F2 INTEREST PAID.....	87
F3 INTEREST RECEIVED.....	90
PART G - ELEMENTS OF THE CAPITAL ACCOUNT	91
G1 GROSS FIXED CAPITAL FORMATION (GFCF)	91
G2 CONSUMPTION OF FIXED CAPITAL (CFC).....	96
G3 CHANGES IN STOCKS.....	100
G4 CAPITAL TRANSFERS (INVESTMENT GRANTS, OTHER CAPITAL TRANSFERS)	101

PART A - GENERAL FRAMEWORK

A1 INSTITUTIONAL FRAMEWORK

A1.1 INSTITUTIONAL SETTINGS, INTERDEPENDENCY EAA WITH OTHER STATISTICS

A1.1.1 *Which Institution(s) are responsible for the compilation of the Economic Accounts for Agriculture (EAA) and of the unit values of agricultural products?*

Federal Statistical Office FSO is responsible for the compilation of EAA, with the support of the Swiss Farmer's Union (SFU)

A1.1.2 *Which Institution(s) are responsible for the compilation of the Agricultural Income Index?*

Federal Statistical Office FSO is responsible for the compilation of AII, with the support of the Swiss Farmer's Union (SFU)

A1.1.3 *Is there interdependency between EAA and National Accounts (NA)?*

Yes

A1.1.4 *If previous answer is "Yes", then is the bridge table compiled?*

Yes

A1.1.5 *Is there interdependency of EAA and Regional Economic Accounts for Agriculture (REAA)?*

Yes

A1.2 UPDATES TO EAA

A1.2.1 *At which time of the year are the updates of the EAA carried out?*

Between July and September

A1.2.2 *Which years are covered by each of these updates? (i.e. update in September of year n for the years $n-1$, $n-2$, $n-3$)*

n (1st estimate), $n-1$ (provisional), $n-2$ (semi-definitive), $n-3$ (definitive, with the loading of definitive FISIM delivered by National Accounts, impacting intermediate consumption, interest paid and interest received and therefore all the balancing items except gross/net entrepreneurial income)

A1.3 CONSISTENCY WITH NATIONAL EAA

A1.3.1 *If national EAA are different from those transmitted to Eurostat: what are the differences? Why are these differences kept? Are they documented? (if so, please transmit documentation.)*

No difference

A1.3.2 *Are there, apart from the Eurostat Regulation, any further methodological guidelines available at national level? (If so, please transmit these guidelines.)*

Implementation methodological report, which includes Eurostat's EAA inventory but further accounts for the primary sector (REEA, EAF, bridges with National Accounts...). The framework of concepts and standards are those of EAA and ESA.

A2 COMPILATION OF THE EAA: GENERAL REMARKS

A2.1.1 *For which years are retropolations¹ carried out and (if they are not yet available) when will they be available?*

1985 upwards (some main aggregates have been retropolated to 1848).

A2.1.2 *Details of retropolation method used in your country: for which items are estimations made? On which assumptions are these estimations based?*

Timeseries from 1990 upwards are compiled for each year. Timeseries 1985-1989 for most items have been compiled for each year, based on former EAA89-method, adapted to intra-unit and intra-branch output/input (fodder, agricultural services).

A3 DATA USERS AND CONFIDENTIALITY

A3.1.1 *Who are the main users of economic accounts for agriculture data? (e.g. National Accounts; other units / departments in your organisation (please specify); other international organisations (please specify); ministry of agriculture; other ministries; scientific institutes and universities; other users (please specify); unknown)*

National Accounts (bridge for production account industry 01, balance sheet cultivated assets, specific other subsidies, intermediate consumption structure for IOT), Producer Price Index

¹ Retropolation represents the calculation of backwards time series which are consistent with the adjusted benchmark year.

(weighting scheme for agricultural products), Farm Structure Survey (Standard Output Coefficients), Federal Office for Agriculture FOAG (economic sustainability indicators), Cantons (Regional EAA), Federal Research Institute Agroscope (simulation models for agricultural policy, calibration basis)

A3.1.2 Are there any confidentiality rules applied to microdata used for EAA compilation in your country? If yes, please describe your confidentiality rules.

Yes, applies for any microdata used (annual Farm Structure Survey, elementary Producer Prices) and any data used which lies under date embargo (NA data, FADN data, extracts from provisional Federal budget). All those input data cannot be identified once they are compiled and aggregated in the EAA.

A3.1.3 If applicable, please provide any comments on the amount of data affected by embargo.

All the EAA output data underlies very restrictive embargo until it is published by FSO (press release); from that moment, no embargo exists any more. Of course, access to input data stays restricted, and is not disseminated by the EAA canal.

PART B - STANDARD QUESTIONS – QUICK GUIDE

B1 DATA SOURCES

1. What are the data sources used to compile quantities, prices, values, volume indexes and price indexes (at least the most important ones)? If your calculations are based (inter alia) on quantities, prices and price indices: please specify the links (if any) to corresponding data sent to Eurostat (balance sheets, production statistics, agricultural price statistics).
2. On which methods of data collection are these data sources based?
3. Comment on the representativeness of the data sources used.

B2 LEVEL OF DETAIL

When compiling the EAA, at which level of detail do you work (e.g. for cattle: cattle (excluding calves), calves, etc.)? Please specify for each item.

B3 CALCULATION PROCEDURE

Please indicate in the Excel table the relations between basic data and EAA results.

If you work with more level of detail than the EAA, please add the necessary rows to the table. However, it is sufficient if all those sub-items for which the same calculation method is applied are grouped together in one line. In this case, please make sure to give a complete enumeration of the sub-positions concerned in the first cell of the row.

B4 ADJUSTMENTS

If adjustments to any of the data are made, in the framework of compiling the EAA at national level, please describe these adjustments. In particular, if any of these data refer to another reference period than the calendar year, please specify how the relevant calendar year figures are determined.

B5 ESTIMATIONS

If estimations are made, please specify. Give also details on the assumptions underlying these estimations.

B6 NUMERICAL EXAMPLE

Taking into account your replies to the previous questions (particularly to questions 1 and 3 to 5): please give an example of

how the EAA results are calculated. For this purpose, the table given under question 1 can be used; however, its use is not obligatory. If you use the EAA elaboration tables of Appendix III of the EAA/EAF manual (rev. 1), please join them to your examples.

B7 SUBSIDIES AND TAXES ON PRODUCTS

1. List of subsidies on products and taxes on products relevant for the product in question;
2. Data sources;
3. Allocation: if the subsidies and / or taxes on products refer to a group of products (e.g. CAP reform subsidies referring to cereals, oilseeds and protein crops), please explain how their allocation to the individual products is done;
4. Price component or value? How are the subsidies and / or taxes on products incorporated in the EAA: as price component (i.e. by calculating a basic price for output items or a purchaser price for intermediate consumption items) or as values?
5. Accruals principle: for which of the subsidies / taxes on products mentioned above (point B7.1) did the application of the accruals principle under the new methodology confer changes?
6. Reference period: when subsidies / taxes on products refer to a reference period different from the calendar year, in which way are the relevant values allocated to calendar years?

B8 PROVISIONAL AND SEMI-DEFINITIVE ACCOUNTS AND AGRICULTURAL INCOME INDEX VERSUS DEFINITIVE ACCOUNTS

The Questions (1) to (7) refer to the compilation of the definitive EAA. Please provide, under this heading, a short description of differences in the way of calculation of the provisional, the semi-definitive accounts and of the Agricultural Income Index.

B9 UNIT VALUES

Further information on the calculation of unit values (if calculated for the product in question) is only required if there are deviations from the EAA methodology.

Please note:

If it is not possible to answer these questions because of the aggregate level of the products concerned (e.g. fruits, vegetables), please describe the approach chosen for the individual products (at least the most important ones) being part of that aggregate.

The codes referred to in this questionnaire are the same as used in the data transmission tables and in Eurobase.

PART C - COMPONENTS OF THE PRODUCTION ACCOUNT: OUTPUT

C1 GENERAL

C1.1.1 Could you please list the products concerned by the intra-unit/branch consumption? (Details concerning the calculation for each of these products should be given under the respective product group).

Products concerned by intra-unit production and consumption (fodder and litter):

- cereals: all categories (fodder)
- protein crops (fodder)
- fodder crops (feed maize, beet and other fodder roots, cereal straw (as fodder and litter), hay, grazing and other rough forage, sugar beet tops)
- potatoes (fodder)
- apples for cider and distillation (also used as fodder)
- pears for cider and distillation (also used as fodder)

Products concerned by intra-branch production and consumption (sales to other agricultural units according to EAA branch):

- fodder crops (feed maize, beet and other fodder roots, cereal straw, hay, grazing and other rough forage)
- Nurseries
- Seeds (for market gardening and horticulture)
- Agricultural services
- Renting of milk quotas (1999-2009)

C2 INDIVIDUAL ITEMS

C2.1 CEREALS

C2.1.1 Data sources

Quantities
The quantities harvested are recorded by type of cereal and partially by type of use by the Swiss farmer's Union (SFU) and swiss granum (interprofession for cereal, oilseeds and protein crops chains). The harvested quantities are compiled by multiplication of the cultivated area (annual farm structure survey, Federal Statistical Office FSO) with the yield per area (harvest survey by SFU). The quantification of uses bases on different sources: the seeds quantity relies on the seed statistics by Swissem (Swiss

Federation of Seed Producers), the cereal deliveries are based on the Swiss granum data collected by the collection centers and the intra-unit consumption as well as the own final consumption are based on SFU models (in compliance with the food and fodder balance sheets). SFU compiles a cereal balance sheet which is linked to the fodder balance sheet at micro-level (agricultural holdings). This enables to allocate the harvest to the different EAA uses channels and to estimate the stocks. It is assumed that a part of intra-unit consumption of barley, grain maize, feed meslin, oats and triticale is still on the holding as stock at the end of the year. However, wheat, rye, breadmaking meslin and spelt have all been delivered to the collection centers by the end of the year, and are not on the agricultural holdings any more. There are no statistics about cereal transactions between the agricultural holdings, and those exchanges are considered as irrelevant.

Prices

Average campaign year prices for wheat, rye, breadmaking meslin and spelt are published at the collection centres by Fenaco, Switzerland's main buyer of bread grain. Prices are broken down by marketing type, organic production, germinated share and share of downgraded goods (based on informations given by cereal producers). Prices of feed grain (barley, grain maize, feed meslin, oats and triticale) are based on the guide prices valid for the Swiss granum campaign year, corrected if necessary according to the situation of the market. Handling costs (transport, cleaning, storage) are deducted from the above prices, using accounting data from Agroscope (the Swiss FADN). These prices are applied to stocks, own consumption and intra-unit consumption. For sales outside the branch, prices are adjusted in line with seed prices (additional seed compensation).

C2.1.2 *Level of detail*

The main cereals are common wheat, barley, grain maize and triticale, followed further behind by spelt, rye and oats. In Switzerland, the growing of durum wheat, buckwheat and rice is negligible; therefore, these crops are not evaluated in the EAA. Common wheat, spelt and negligible quantities of emmer, einkorn, millet and breadmaking meslin are evaluated together. The "other cereals" item contains triticale and meslin of feed grain (small quantities).

C2.1.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

C2.1.4 *Adjustments*

None.

C2.1.5 *Estimations*

Two thirds of the fodder cereals which the holdings feed to their own livestock (intra-unit consumption) are assumed to add to the stocks at the end of year (final stocks)

C2.1.6 *Numerical example*

Please see numerical example (excel sheet C2.1_01110, C2_01130)

C2.1.7 *Subsidies and taxes on products*

All subsidies on products on cereal crops were eliminated in 2001.
All taxes on products on cereal crops were eliminated in 2001.

C2.1.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices. Estimates are based on the provisional yield results (estimated on the base of deliveries in collection centers up to end of August) as prices are based on recommended prices (before definitive quality correction).

C2.1.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 01000, 01110, 01200, 01300, 01400, 01500.

C2.1.10 *Details on the calculation of intra-unit/branch consumption (quantities, prices, subsidies etc.)*

Please see numerical example (excel sheet)

C2.1.11 *Products covered by the item 'other cereals' (code 01900)*

The item „Other cereals“ contains triticale and fodder meslin (unsignificant quantities).

C2.1.12 *Details concerning their calculation, particularly confirmation that research & development as well as certification of seeds are not included in the EAA.*

A supplement is awarded for the extra amount of expense occurred. Research & development costs are not included.

C2.2 OILSEEDS AND OLEAGINOUS FRUITS (INCLUDING SEEDS)

C2.2.1 *Data sources*

Quantities

Quantities harvested (depending on use) of rape, sunflower and soya are recorded by swiss granum and production of soya seed by Swisssem. The harvest of linseed, oil hemp and oil pumpkin is estimated: cultivated area (statistics of crop premiums, Federal Office for Agriculture FOAG) * yield (expert value).

It is assumed that there is no storage on holdings, no intra-unit consumption and no sales within the agricultural industry (that means between agricultural units). The whole production is delivered to the collection centers after harvest.

Prices

swiss granum calculates average farm gate prices after the conclusion of the yearly campaign and completed marketing of the harvest of rape, sunflower and soya. Handling costs (transport, cleaning, storage) are deducted from the above prices, using accounting data from Agroscope (the Swiss FADN). The price of soya seed is a weighted average of the various varieties of soya in the Agridea price list.

C2.2.2 *Level of detail*

Colza is by far the most important. This heading also contains soya (since 1990), sunflower (since 1994) and, since 2003, other oil plants (oil hemp, oil pumpkin and linseed). Seed production relates to soya only. Bioenergy production based on rape or sunflower (used as renewable raw materials) has been discontinued end of 2012.

C2.2.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

C2.2.4 *Adjustments*

None.

C2.2.5 *Estimations*

The prices and yields for linseed, oil hemp and oil pumpkin are based on expert estimates.

C2.2.6 *Numerical example*

Please see numerical example (excel sheet: C2.2_02110)

C2.2.7 *Subsidies and taxes on products*

Subsidies on products

Crop premiums for oil plants (Federal Office for Agriculture FOAG) are distributed according to the areas under cultivation of the various oil plants and the subsidy per hectare is constant, with the exception of oil hemp, for which no subsidies are paid. The total amount of subsidies for each crop is recorded in the EAA.

Taxes on products

No taxes on products exist.

C2.2.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices. Estimates are based on the provisional yield results (estimated on the base of deliveries in collection centers up to end of August) as prices are based on recommended prices (before definitive quality correction).

C2.2.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 02100, 02110, 02120, 02130.

C2.2.10 *Products covered by the item 'other oleaginous products' (code 02190)*

From year 2003 upwards, the item "Other oleagineous products" contains oil hemp, oil pumpkin and linseed.

C2.3 PROTEIN CROPS (INCLUDING SEEDS)

C2.3.1 *Data sources*

Quantities

Quantities are calculated by the Swiss Farmer's Union (SFU) on the basis of cultivated areas (Federal Statistical Office FSO) and yields (SFU). Part of the harvest is used as feed on the holding (intra-unit consumption) and the rest is sold the the collection centers directly after being harvested. The delivered quantities (sales) are recorded

by swiss granum. In contrast with field peas (where data is collected by Swisssem), no seed is produced for field beans or lupins in Switzerland.

Prices

The guide prices for the yearly campaign are published by swiss granum. The effectively reached average price for pulses (field pea) is published in the agricultural press. An weighted average price based on the price of seed is calculated. For the other crops, the guide price is applied. Handling costs (transport, cleaning, storage) are deducted from the above prices, using accounting data from Agroscope (the Swiss FADN).

There are no indications for farm gate prices of field pea seed. The same average price ratio is applied here as observed between the farm gate price and the selling price of seed grain (60%).

C2.3.2 *Level of detail*

This heading covers dried pulses for animal feed: field peas and beans and, since 2000, lupins. In Switzerland, soya is grown solely for oil, and pulses are of limited importance; therefore, soya is registered as oleagineous plant. Protein crops play only a marginal role in Switzerland; amongst them, field pea is by far the most cultivated pulse.

C2.3.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

C2.3.4 *Adjustments*

None.

C2.3.5 *Estimations*

The price for field pea seed is estimated.

C2.3.6 *Numerical example*

Please see numerical example (excel sheet: C2.3_02200)

C2.3.7 *Subsidies and taxes on products*

Subsidies on products

The crop premiums for protein crops are paid by the Swiss Confederation per cultivated hectare; the amount per hectare is constant. The total amount of subsidies for each crop is recorded in the EAA.

Taxes on products
No taxes on products exist.

C2.3.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices. Estimates are based on the provisional yield results (estimated on the base of deliveries in collection centers up to end of August) as prices are based on recommended prices (before definitive quality correction).

C2.3.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 02200 (and non compulsory items 73300, 73400, 73500).

C2.3.10 Details on the calculation of intra-unit/branch consumption (quantities, prices, subsidies etc.)

Please see numerical example (excel sheet: C2.3_02200)

C2.4 RAW TOBACCO

C2.4.1 Data sources

Directorate-General for Customs (DGC).

C2.4.2 Level of detail

This heading covers all varieties of raw tobacco produced in Switzerland (mainly Burley and Virginia). No seed is produced.

C2.4.3 Calculation procedure

Value = price x quantity (see excel sheet).

C2.4.4 Adjustments

None.

C2.4.5 Estimations

The price and harvest of tobacco are estimated.

C2.4.6 Numerical example

Please see numerical example (excel sheet: C2.4_02300)

C2.4.7 *Subsidies and taxes on products*

None

C2.4.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.4.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity.

C2.5 **SUGAR BEET**

C2.5.1 *Data sources*

Quantity
The quantities come from sugar beet statistics (Zuckerfabriken-Sucreries Aarberg+Frauenfeld). Production is divided into three quotas: A and B (guaranteed uptake), and C (above the guaranteed uptake).
Prices
Average campaign prices are obtained from the sugar beet statistics, with differing threshold prices for quotas A, B and C. The following supplements are paid: contribution to transport costs and premiums for early and late deliveries. The price is adjusted depending on the quality (sugar content, processing yield, content of soil, stone, tops and other plant material).

C2.5.2 *Level of detail*

Sugar beet is produced in Switzerland under contract, and the quantity is subject to quotas. No seed is produced in Switzerland.

C2.5.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

C2.5.4 *Adjustments*

None

C2.5.5 *Estimations*

The harvest of sugar beet are estimated on first crop samples. The price is the provisional campaign price announced in the contracts.

C2.5.6 *Numerical example*

Please see numerical example (excel sheet: C2.5_02400)

C2.5.7 *Subsidies and taxes on products*

Subsidies on products are payed since 2008 (fixed amount per hectar). No other taxes on products are payed since 1995.

C2.5.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.5.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity.

C2.6 OTHER INDUSTRIAL CROPS

C2.6.1 *Data sources*

The data for hops are recorded by the GPSH cooperative at Feldschlösschen Boissons SA. The quantities and prices of medicinal plants come from the Swiss group for fostering the growing of medicinal and aromatic plants in mountain areas. The quantities of renewable raw materials are calculated on the basis of cultivated areas (FSO) and yields (expert values and publications in the specialised press, which also supply price information). The extension and renewal of plantations (own-account production of fixed capital goods) are based on annual variations in areas. The costs of establishing and renewing plantations are obtained from the specialised press.

C2.6.2 *Level of detail*

This heading covers the other industrial plants: hops, medicinal plants, perennial renewable raw materials (renewable raw materials, Chinese red, kenaf) and, until 1992, hemp (as a textile

fibre plant). Other renewable raw materials, such as flax, fast-growing species and comfrey are grown on very small areas only, and are not taken into account.

C2.6.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

C2.6.4 *Adjustments*

None

C2.6.5 *Estimations*

Prices and yields for renewable raw materials are estimated with help of experts values.

C2.6.6 *Numerical example*

Please see numerical example (excel sheet: C2.6_02920)

C2.6.7 *Subsidies and taxes on products*

Between 1993 and 2013, crop premiums have been paid out for renewable raw materials (Chinese red, kenaf and textile hemp). They are distributed between products on the basis of their respective areas. Those subsidies on products have been abandoned in 2014.

C2.6.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.6.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 02920 (hops).

C2.6.10 *Products covered by the items 'fibre plants' (code 02910) and 'other industrial crops: others' (code 02930): enumeration limited to the most important ones (e.g. 10 most important species).*

Actually, no fibre plants are cultivated in a significant way in Switzerland (code 02910). The item ,other industrial crops: others'

(code 02930) covers medicinal and aromatic plants, as well as kenaf.

C2.7 FORAGE PLANTS

C2.7.1 *Data sources*

Quantity:

The harvest of fodder root crops, maize whole plant and by-products of crop production (straw and sugar beet tops) are evaluated on the basis of yields (Swiss Farmer's Union (SFU)) and areas cultivated (FSO). The Swiss association of drying enterprises (VSTB) published each year the production of dry grass. The production of roughage is evaluated in the feed balance (SFU). The feed balance evaluates the disposables (grass production based on areas and yields of the different types and altitudes of pastures and meadows) and the uses (fodder needs of livestock herds); areas and livestock are based on the yearly farm structure statistics (FSO).

The balance is then compiled, taking into account weather conditions, imports of roughage, volume of stocks, length of vegetation and grazing periods, losses, etc. The quantities of roughage are distributed according to conservation type (hay, silage, grazing, etc.) and uses types (intra-unit consumption, sales to other farms, etc.). Final stocks are compiled.

Prices

Prices of hay and grain maize are the result of negotiations between traders and producers. These two guide prices (for fodderbeet, barley is also covered) form the basis for evaluating all the other roughage prices. The Swiss association for roughage publishes guide prices for hay (and straw) in the specialised press (Bauernzeitung) and the Agridea price list (called 'Reflex' since 2015), serving as a basis for pastures and grass silage (SFU). The association of drying enterprises publishes guide price for dried grass. Agridea evaluates prices for green and silage maize on the basis of the price of grain maize. Agridea also calculates the guide prices for fodderbeet and sugar beet tops (Reflex, Agridea price list).

C2.7.2 *Level of detail*

All fodder plants are covered, in all usual forms in which they are kept on the holding. Production of grass on summer pastures is not covered, as growth on these mountain pastures is not influenced significantly by human beings. The following types of roughage are

evaluated, whether fresh or preserved:

- Fodder root crops (beet, roots, forage kale, swedes)
- Maize whole plant (green, silage), without grain maize.
- Fodder from permanent and artificial pasture
- By-products of plant production (straw and sugar beet tops)

C2.7.3 Calculation procedure

Value = price x quantity (see excel sheet).

C2.7.4 Adjustments

None

C2.7.5 Estimations

The quantity of forage plants is estimated. Only few market observation data exists, as those feedingstuffs are in general produced and consumed in the same holding. Quantities and stocks are estimated. The prices are evaluated indirectly on the basis of substitute products.

C2.7.6 Numerical example

Please see numerical example (excel sheet: C2.7_03900)

C2.7.7 Subsidies and taxes on products

None

C2.7.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.7.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 03100.

C2.7.10 Details on the calculation of intra-unit/branch consumption (quantities, prices, subsidies etc.)

Please see numerical example (excel sheet)

C2.7.11 *Products covered by the items 'fodder root crops (including forage beet)' (code 03200) and 'other forage plants' (code 03900)*

'fodder root crops (including forage beet)' (code 03200) covers beet, roots, forage kale and swedes. Item 'other forage plants' (code 03900) covers fodder from permanent pastures and meadows and artificial (temporary) meadows (hay, grass silage, dry grass, grazing) and by-products of plant production (straw and sugar beet tops).

C2.8 FRESH VEGETABLES

C2.8.1 *Data sources*

Quantities

Fresh vegetables:

Every week growers report the harvestable quantity of each type of vegetable to the Swiss center for market gardening and special crops (CCM). On this basis the CCM calculates the reported annual production, which is the starting point for the economic evaluation. It is assumed that between 80% and 85% of the reported quantities are actually harvested.

Vegetables for storage:

Quantities are based on the CCM inventory of stocks at mid-November of the year under review. It is assumed that vegetables for storage are sold by production units up to the end of the calendar year.

Vegetables for preserving and refrigerating:

The Swiss Convenience Food Association (SCFA) and CCM supplies the data.

The quantities of cultivated mushrooms produced are reported by the Swiss association of mushroom growers. Own consumption of vegetables is estimated by the SFU.

Prices

Farm gate prices are evaluated indirectly via prices to wholesalers on the various exchanges of market garden produce. The CCM weights these prices using the quantities reported for each type of vegetable and derives a weighted average price per vegetable for the season. The SFU evaluates the intermediary margin (packaging, transport, losses) in order to derive the farm-gate or base prices from the CCM Prices. Prices of preserved vegetables are supplied by the SCFA. The price of mushrooms is evaluated directly from the consumer price.

C2.8.2 *Level of detail*

Vegetables are basically reported in over 100 different varieties, which are grouped for EAA in 3 main categories: fruit vegetables (tomatoes, etc.), root vegetables (carrots, etc.) and other vegetables (lettuce, etc.). This item covers the whole vegetable production, which includes outdoor open field, outdoor market gardening and under glass cultivation of vegetables. Vegetables are produced as fresh vegetables, storable vegetables and vegetables for processing.

C2.8.3 Calculation procedure

Value = price x quantity (see excel sheet).

C2.8.4 Adjustments

None.

C2.8.5 Estimations

Quantities and prices estimated on available reported months.

C2.8.6 Numerical example

Please see numerical example (excel sheet: C2.8_04100)

C2.8.7 Subsidies and taxes on products

None.

C2.8.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.8.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 04110, 04120.

C2.8.10 products covered by the item 'other fresh vegetables' (code 4190): enumeration limited to the most important ones (e.g. 10 most important species)

The most important vegetables covered by the item ,other fresh vegetables (code 04190) are different varieties of lettuce, broccoli, leek, carrots, celery, oignons, mushrooms, fennel, radish, zucchetti.

C2.9 NURSERY PLANTS, ORNAMENTAL PLANTS AND FLOWERS (INCLUDING CHRISTMAS TREES)

C2.9.1 *Data sources*

Please see calculation procedure.
Quantities and prices:
Annual farm structure survey (FSO), producer price statistics (FSO), turnover nurseries (Jardin Suisse), cut flower statistics (CCM), price lists (Agridea, Reflex).
Apart from Christmas trees and cut flowers, the production value of other horticultural products (potted plants, nursery products) is valued directly by using the unit of area as the unit of quantity. The absolute farm gate prices from the production price index (FSO), can be used to obtain quantities (number of plants or pots) as a guide and for the purposes of internal checks of the coherence of the results.

C2.9.2 *Level of detail*

This heading covers horticultural products:

- nurseries: ornamental shrubs, perennial plants, rose bushes, fruit and vine nurseries,
- potted and other live plants,
- cut flowers (specialist enterprises and self-pick areas),
- Christmas trees (grown on UAA).

Nurseries for forestry plants are covered by the economic accounts for forestry.

C2.9.3 *Calculation procedure*

Valuation is divided into three groups: flower-growing, Christmas trees and nurseries.
To sum up, flower-growing production is evaluated in four stages:
1. The unit horticultural area is calculated on the basis of the Farm structure surveys (FSO), converting open ground (factor 1), tunnels (factor 7) and greenhouses (factor 10 to 16, depending on the horticulture crop) into an equivalent profitability area.
2. On the basis of the statistic for cut flowers (CCM), the annual requirement in unit area for growing cut flowers is calculated, the remainder being available for growing potted and other live plants.
3. Cut flowers are valued on the basis of quantities and price. The quantities are evaluated on the basis of the CCM statistics (quantities reported adjusted over the whole year, with evaluation of domestic production during the period of free imports). The

prices are taken from the production price index (FSO), weighted according to the breakdown of the CCM quantities.

4. Jardin Suisse (formerly the Swiss master gardeners' association) provides the key accounting figures from a panel of horticulture enterprises. The turnover per unit area of the sub-universe of "wholesale" units is multiplied by the balance of unit area (total less area for cut flowers).

The choice of accounting sub-universe for the "wholesale" units is a means to avoid overestimating the value of flower-growing production, as these "wholesale" units are above all primary producers. They have a very limited role as commercial intermediaries (importing of potted plants, storage/care and resale). This avoids, for the whole economy, counting double with the branch of wholesale and retail trade in horticultural plants.

The value of Christmas tree production (grown on usable agricultural area) is based on the long-term evolution of the areas (FSO). It is assumed that a pine tree is harvested ten years after planting on average. The unit price per harvested pine tree is evaluated on the basis of the Agridea list prices (Reflex). Changes in inventory are evaluated (progress on work in hand, hence of the value of the plant material).

Nursery production is valued on the basis of the accounting results of nursery enterprises (Jardin Suisse, formerly APS – Swiss Nurseries Association – turnover statistic for the branch). The difference between the area covered by the Jardin Suisse and the FSO is deducted proportionally (value of production per hectare). While changes in inventory are not evaluated (highly stable production) in the EAA, the Jardin Suisse statistics give a detailed breakdown of production by disposal channel.

The calculation at current prices is carried out at the same basic level as for the production price index (FSO), the details of which are then used to evaluate at the prices for the previous year or at constant prices for a reference year: $[\text{volume}(t) = \text{value}(t)/\text{price index}(t/t-1)]$.

C2.9.4 Adjustments

See calculation procedure.

C2.9.5 Estimations

Evolution rates in value (experts values) and prices (first available months of producer price index) or in quantities (experts values) and prices (first available months of producer price index).

C2.9.6 Numerical example

Please see numerical example (excel sheet: C2.9_04210)

C2.9.7 *Subsidies and taxes on products*

None.

C2.9.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.9.9 *Unit values*

No data (non compulsory).

C2.9.10 *Field of observation / 'nursery plants' (04210) versus 'ornamental plants and flowers (including Christmas trees)' (04220): details on how the distinction between both categories has been made?*

Please see calculation procedure. Different sources as well as clearly different areas measured by FSS (FSO) make the distinction.

C2.9.11 *Field of observation / 'nursery plants' (04210): details on how the distinction between agricultural and forestry tree nurseries has been made?*

Forestry tree nurseries on Utilised Agricultural Area are clearly identified by separate area category (annual FSS, by FSO), and are valued in the scope of Economic Accounts for Forestry (EAF).

C2.9.12 *Content / 'Ornamental plants and flowers (including Christmas trees)' (04220): confirmation that Christmas trees have been covered.*

Christmas trees of plantations on UAA (that means, on areas outside forests) are part of 04220.

C2.10 **PLANTATIONS**

C2.10.1 *Data sources*

Quantities

The quantities planned are based firstly on the renewal of the trees or plantation areas that have reached the end of their lives, and secondly on the change in relation to the previous year (extension = addition to renewal, reduction = subtraction from renewal):
- Hops: replacement after 20 years' use, annual areas (FSO).

- Perennial renewable raw materials: replacement after 12 years' use, annual areas (FSO).
- Tree-growing: replacement after 15 years' use, annual areas (FSO and FOAG, for dessert apples and pears, peaches, cherries, apricots) and number of trees (FSO, for other fruit).
- Berries and small fruit: replacement after 8 years' use, annual areas (FSO).
- Vineyard: replacement after 25 years' use, annual areas (FSO). Planting spread over three years. According to the delimitation of the Farm structure surveys, the FSO reports a smaller area under vines than that published in the harvest declaration (FOAG). The difference covers small wine-growing units, and is recorded in the bridge table between EAA and National Accounts.

Prices

The price at the planted area incorporates all planting costs (plants, stakes, anti-frost nets, wages, machinery maintenance, etc.). The price at the tree covers the cost of the young tree:

- Hops, perennial renewable raw materials, tree-growing, berries and small fruit: list of gross margins (Agridea).
- Vineyard: price of assets planted by wine training system (Agridea). The weighting of the training systems (degree of mechanisation of the wine-growing work, from the very labour-intensive gobelet pruning to highly mechanised methods for straddle type tractors) is based on the wine-growing census (FSO, 1991), changes being based on expert opinions (Agridea, case studies). Costs are spread over three years.

C2.10.2 *Level of detail*

This item covers solely the aggregate own-account production of fixed capital goods as cultivated assets of the plantation type, i.e. hops, perennial renewable raw materials, fruits trees orchards, berries and vines.

C2.10.3 *Calculation procedure*

Plantation production is valued on the basis of the number of trees or planted area time a unit price per tree or area. This accounting item is also recorded in the capital account (fixed gross capital formation on plantations) and serves, for each category of plantation, as input to the matrices of the perpetual inventory method (PIM), from which the asset value and fixed capital consumption in plantations are derived. Finally, the value produced in plantations is the counterpart of all costs (wages, intermediate consumption, depreciation) allowed to produce this investment good.

C2.10.4 *Adjustments*

None.

C2.10.5 *Estimations*

None.

C2.10.6 *Numerical example*

Please see numerical example (excel sheet: C2.10_04230)

C2.10.7 *Subsidies and taxes on products*

None.

C2.10.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.10.9 *Unit values*

Doesn't apply.

C2.11 **POTATOES (INCLUDING SEEDS)**

C2.11.1 *Data sources*

Quantities

The quantities harvested and sold are provided annually by Swisspatat. The quantities of seed are provided by Swissem. The following assumptions are made:

- No stocks: growers have sold all their harvest by the end of the year.
- Organic farming is evaluated on the basis of the organic cultivated areas of potatoes and the yield of organic potatoes.
- No internal re-use of seed (annual purchase of new seed).
- Own consumption is estimated (farming population times per capita consumption).
- The channel for sales outside the branch contains sales of seed, food potatoes and potatoes for industrial drying.
- The channel for consumption within the branch (for animal feed) is a balancing item, containing potatoes that cannot be sold or propagated.

Prices

The Swisspatat branch organisation provides food potato campaign prices, which are weighted according to the quantities of the varieties. Swisspatat provides also the prices for new potatoes (May-July) which are weighted according to the quantities produced. Seed prices are taken from the Agridea list and weighted according to the proportion of each variety. Prices of feed potatoes are reported by the SFU. Since 2009 a mutual fund for promoting fresh potatoe fodder has been introduced (a public subsidy system was in place until 2008).

C2.11.2 Level of detail

This heading covers new potatoes, food potatoes and seed potatoes. Potatoes used as feed on holdings are taken from surplus or lower quality production.

C2.11.3 Calculation procedure

Value = price x quantity (see excel sheet).

C2.11.4 Adjustments

None.

C2.11.5 Estimations

The own consumption by farm households of potatoes is estimated.

C2.11.6 Numerical example

Please see numerical example (excel sheet: C2.11_05000)

C2.11.7 Subsidies and taxes on products

Federal contributions to encourage the use of potatoes as fresh animal feed are recorded under consumption within the branch. Those subsidies on products were abandoned in 2009.

C2.11.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.11.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 05000.

C2.12 FRUITS (TOTAL, CODE 06000)

C2.12.1 *Data sources*

Quantities:

Apples and pears: production of dessert apples and pears from intensive growing is reported by FOAG and Fruit-Union Switzerland (FUS). FOAG provides the quantities of fruit for cider-making (quantities delivered to professional cider makers), and do not include the quantities set aside for making juice for own consumption or direct sale (recorded under inseparable non-agricultural activities, processing of agricultural products, see C2.25). The quantities sold to distilleries are also recorded (FOAG, Swiss Alcohol Board – SAB). It is assumed that part of the fruit for cider-making is consumed within the branch (fodder). Stocks of dessert fruit on holdings are inventories at the end of each year (FUS).

Peaches: Peaches are grown mainly in the cantons of Vaud and Valais. Quantities are estimated on the basis of the number of productive trees times the crop production yield (Union fruitière lémanique, Lake Geneva fruitgrowers' union, UFL). Own consumption is negligible.

Cherries, plums and prunes: Cherries, plums and prunes are grown for eating and for making spirits (eaux-de-vie).

For dessert fruits, the quantities marketed are obtained from the FUS while the SFU estimates the quantities for direct sale and own consumption. The SAB provides quantitative data on fruit for distillation.

Apricots: Apricots come mainly from Valais, and production is evaluated on the basis of information from Interprofession des fruits et légumes du Valais (IFELV, Valais professional fruit and vegetables association). The SFU estimates own consumption.

Berries: The FUS reports quantities sold to the trade. The SBV estimates direct sales, including sales via self-pick by private individuals.

Other fruit: Kiwis, kiwais and nashis are grown mainly in the canton of Vaud. Swiss production is therefore evaluated on the basis of yields in Vaud (UFL). Chestnuts are calculated on the basis of the area under chestnut trees and average yields in southern Switzerland (SFU). The quantity of quinces is based in the yield and

the number of productive trees, plus production from intensive growing (UFL). Swiss walnut production is based mainly on standard trees and is estimated from their number and yield (recorded by the SFU), plus a few cultivated trees. Own consumption of other fruit by farming households is negligible. Grapes: see item C2.13

Prices:

Apples and pears: Average prices of dessert fruits for the season are obtained by weighting the varieties, quality classes and marketing channels. Prices of fruit for cider-making are published by the FUS, and those of fruit for distillation by IFELV.

Peaches: Prices are published by the UFL.

Cherries, plums and prunes: The prices for the season are weighted according to the valuation channel. The FUS calculated the guide farm gate prices for dessert fruit marketed and fruit for distillation. Direct-sale and self-pick prices are published in the Agridea lists.

Apricots: Prices are reported by the IFELV.

Berries: Prices are weighted according to the disposal channel. The FUS calculates the average prices for the quantity sold to the trade, while direct-sale and self-pick prices are published in the Agridea price lists. Disposal is weighted according to the species of berries and small fruit.

Other fruit: Import prices are applied to kiwis; this price is used for the other various fruit from temperate climates (nashis, kiwais, chestnuts). Prices of walnuts (most of which are disposed of by direct sales) are obtained from the Agridea price lists. The FUS publishes the prices of quinces.

C2.12.2 Level of detail

In Switzerland, the item fruits covers the following products: apples, pears, cherries, plums and prunes, apricots, quinces, peaches, berries (strawberries, raspberries, blackberries, gooseberries, redcurrants, blackcurrants, cranberries, bilberries), kiwis, nashis, kiwais, chestnuts and walnuts, table and wine grapes. Depending on the product, fruit is consumed fresh, dried, as juice or as an alcoholic beverage (fermented or distilled). In the case of wine grapes, only the wine grapes which are sold as grapes are recorded here. The wine grapes which are processed to wine within the holding are recorded (to the value of wine) under the item 07000 (wine).

C2.12.3 Calculation procedure

Value = price x quantity (see excel sheet).

C2.12.4 *Adjustments*

None

C2.12.5 *Estimations*

Same methodology as for definitive data, with estimates of quantities and prices.

C2.12.6 *Numerical example*

Please see numerical example (excel sheet: C2.12_06130, C2.12_061190.1, C2.12_06190.2)

C2.12.7 *Subsidies and taxes on products*

None.

C2.12.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.12.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 06110, 06120, 64000 (other items don't apply), and non compulsory items 75500, 75600, 75900.

C2.12.10 *Products covered by the items 'other fresh fruit' (code 06190), 'other citrus fruit' (code 06290), tropical fruit' (code 06300), 'other grapes' (code 06490) and 'other olives' (code 06590): enumeration for each, limited to the most important ones (e.g. 10 most important species)*

The major fruit species covered by item 06190 are apples and pears for juice and distillery, cherries, abricots, prunes and plums, strawberries, raspberries and other berries. Item 06490 covers white and red grape varieties, which are sold to wine producers. The items 06290, 06300 and 06590 are irrelevant in Switzerland.

C2.13 WINE

C2.13.1 *Data sources*

Quantities

The harvest declaration (FOAG) provides the quantities of grapes by region (red, white, details of grape varieties also available).

Quantities of wine grapes are divided up between the EAA universe and that of the small agricultural production units on the basis of the differential in declared areas by canton (FOAG) and reported (farm structure surveys, FSO). The breakdown by canton of sales from the harvest (grapes, musts, table wines and quality wines) is based on the wine-growing census (FSO, 1991) and current trends according to expert studies and opinions.

Grapes harvested, published in hectolitres, are first converted into decitonnes (1 dt = 0.8 l of clear wine), and then divided up according to the degree of value added and sale. Losses in volume of the raw material (must) are deducted for finished wines (-6%). Quantities of table grapes are reported by the FUS. Finally, grapes for own consumption are added to the quantities declared (in proportion to production).

Prices

Prices of table grapes are based on information from the IFELV and the FUS. The SFU weights the prices of wine grapes and musts by canton, separately for red and white grapes (by grape varieties and designations), based on regional sources (VOLG, cantonal wine-growing services, Provins, société des encaveurs de vin du Valais SEVV / Valais wine cellarmen association). All prices relate to the season.

As for the quantities, some vineyards are separated within the cantons (Berne: Lake Biel/Bienne and Lake Thun, Graubünden: Misox and Rheintal). Wine prices are based on the farm gate prices in the production price index (FSO). Based on the weighting between table and quality wines, these prices are adjusted in line with consumer prices taken from the index of consumer prices (FSO), so as to take account of the quality, packaging in 75 cl bottles and of the proportion sold directly. Prices are broken down by red and white wines and also, for consumer prices, by region (Valais, Vaud, Switzerland) and bottle size (1 l, 75 cl, 50 cl).

Work in progress (in the vat) is valued at the price of table wine for the harvest year, and keeps this price throughout the wine-making process until the finished product is packaged and sold; in this way, gains or losses during keeping are not recorded in changes of inventory. It is assumed that quality wine is packaged and marketed in bottles (vintages t-1 or t-2) during the year of sale (hence no stocks at the year end of packaged finished products).

C2.13.2 *Level of detail*

White and red grapes, white and red wines (table wine and quality wine), valuation (prices, quantities) specific to each wine growing region, white and red must.

Own wine consumption by agricultural households is evaluated in function of the number of households and the annual yield.

C2.13.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

Wine-growing production is evaluated at canton level, so as to take account of regional aspects (grape varieties, price and proportion of cellar storage on the holding). For the quantities set aside for wine-making on the holding, stocks (work in progress) are kept by vintage, divided into table wine (100% sold in year t+1) and quality wine (50% sold in t+1 and 50% in t+2). The value of these stocks varies according to the stages of adding value to the grape, from pressing to marketing (disposal of finished products) in bulk (table wine) or bottled (quality wine).

C2.13.4 *Adjustments*

None

C2.13.5 *Estimations*

Estimates for current year are done based on the provisional price indices for wines and on the first yield estimates (beginning of September, as harvest begins normally by end of September or October).

C2.13.6 *Numerical example*

Please see numerical example (excel sheet: C2.13_07200)

C2.13.7 *Subsidies and taxes on products*

None.

C2.13.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.13.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 07000, 07100, 07200.

C2.13.10 In the EAA, a part of wine production of the wine manufacturing industry (NACE 11.02) is considered as agricultural activity. Please give details on how this part is separated from the non-agricultural part.

Pursuant to the General Classification of Economic Activities (NOGA), the EAA cover production of table and wine grapes (for processing into wine downstream of solely grape growing holdings) and wine production from own grapes (from the same holding, i.e. wine-makers and cellarmen). A small part of the harvest is sold as must. The separation is done basing on the wine census 1991 where each holding growing grapes has been surveyed and asked about the proportions of own grapes which are sold downstream as grapes and the proportion of grapes which is transformed on the holding to mus or wine. Those proportions (specifi to each wine growing region) have been updated by a study of the University of Neuchâtel (around 2005), and by the wine administrations of the Cantons.

C2.14 OLIVE OIL

C2.14.1 Data sources

Doesn't apply

C2.14.2 Level of detail

Olive plantations are negligible in Switzerland.

C2.14.3 Calculation procedure

Doesn't apply

C2.14.4 Adjustments

Doesn't apply

C2.14.5 Estimations

Doesn't apply

C2.14.6 Numerical example

Doesn't apply

C2.14.7 *Subsidies and taxes on products*

Doesn't apply

C2.14.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Doesn't apply

C2.14.9 *Unit values*

Doesn't apply

C2.14.10 *In the EAA, a part of olive oil production of the oil manufacturing industry (NACE 10.41) is considered as agricultural activity. Please give details on how this part is separated from the non-agricultural part.*

Doesn't apply

C2.15 OTHER CROP PRODUCTS

C2.15.1 *Data sources*

Quantities

1. Forage seed:Swissem publishes the quantities produced.
2. Vegetable, fruit and horticultural seed: It is assumed that this highly specialised production is limited to special areas under cover (tunnels and greenhouses) which are for neither horticultural nor market gardening use. An annual unit area is determined on that basis (FSO).

Prices

1. Forage seed: Prices are an average of the Agridea price list (less an estimated commercial margin). The ratio between the farm gate price and the selling price of wheat seed packaged by the industry is 60% on average: the same ratio is assumed for forage seed.
2. Vegetable, fruit and horticultural seed: The unit value per unit area implicitly derived from the calculation for cut flowers is used as a reference to assess the value of production per unit area (FSO).

C2.15.2 *Level of detail*

This item covers production of

1. fodder seed (clover and grass seeds)
2. vegetable, fruit and horticultural seeds.

C2.15.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

1. forage seed: value = price x quantity
2. vegetable, fruit and horticultural seed: value = unit value x unit area

C2.15.4 *Adjustments*

None

C2.15.5 *Estimations*

None (same method as for definitive data)

C2.15.6 *Numerical example*

Please see numerical example (excel sheet: C2.15_09200.1, C2.15_09200.2)

C2.15.7 *Subsidies and taxes on products*

None

C2.15.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.15.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 09200.

C2.15.10 *'Seeds' (09200): products covered by this item.*

This item covers production of

1. fodder seed (clover and grass seeds)
2. vegetable, fruit and horticultural seeds.

C2.15.11 *Products covered by the item 'other crop products: others' (code 09900)*

None.

C2.16 CATTLE (INCLUDING CALVES)

C2.16.1 *Data sources*

Prices

Prices for slaughter animals are obtained from Proviande and SFU price records. They are weighted by type of marketing (Proviande) and proportions of different labels (according to the trustees of the labels and estimates). The costs of transport between agricultural holdings and the abattoirs and any flat-rate deductions are deducted. These adjusted prices are multiplied by the average slaughter weights, so as to obtain a price per animal. Prices for heifers, bulls and bullocks are further weighted to obtain the average price of the EAA accounting heading "other large bovines". Sales outside the branch for export (tariff headings 0102.90_) are valued at the price of sales outside the branch on the domestic market.

Quantities, details specific to bovines

Animals imported for slaughter (tariff headings 0102.9011 to 0102.9019) are not taken into account.

C2.16.2 *Level of detail*

Cattle are divided into three headings: breeding animals (cows, including nurse and suckler cows), calves (calves and young cattle as per the FSO farm structure surveys) and other bovines (heifers, bulls and bullocks). Cows are registered as fixed cultivated assets ("fixed asset" livestock) whereas other cattle and calves are counted as stock animals.

Waterbuffaloes, zebus and yaks are included in the bovines. These species are not relevant.

C2.16.3 *Calculation procedure*

For "fixed asset" livestock: value = own-account production of fixed capital assets (see background info boxes 1,3,4,5).

= price x quantities

For stock animals: value = price x quantity (see boxes 1,2,4,6).

= (inventory end of year - inventory beginning of year) x price

Value of sales domestic market and exports: price x quantities

Commercial and transportation margins (stock animals): estimated costs of change of ownership are recorded as negative sales und

sales to other agricultural holdings.

Value at the previous year's prices : for "calves", the "calves" production price index (FSO) is used to calculate the volume of production. Prices (t-1) are applied for all other positions.

BACKGROUND INFORMATION

Box 1: Animals, quantities

The quantity produced is measured in head of livestock. Production is an aggregate of various flows of goods. The information on imports and exports of animals is taken from foreign trade statistics (DGC). Animals imported for slaughter are not taken into account as they go straight to the agri-food industry. As the final destination of imported animals (rearing or fattening) is unknown, all imported animals are treated as work in process and deducted from domestic sales of fatstock. For cattle, pigs, horses, sheep and goats, the final number of slaughtered animals for consumption is obtained from FLEKO (meat monitoring database, Federal Food Safety and Veterinary Office FSVO). Slaughter weights are reported by Proviande. The provisional data come from monthly slaughter statistics (SFU). Domestic slaughter (SFU) covers animals processed by agricultural households for own consumption; this information is not reported or is only partially reported by the official slaughter statistics, and this own consumption is recorded in the EAA under secondary inseparable non-agricultural activities.

Box 2: Value = price x quantity

The value of production at current base prices (nominal) is evaluated by channel by multiplying quantities for year (t) by farm gate prices for year (t), plus subsidies on products for year (t) less taxes on products for year (t). The channels are then aggregated to obtain the total value of production at current base prices for year (t) of the product concerned. For a given product, the value of production at base prices for the previous year is obtained in four stages (the most common practice for evaluating the production volume in the EAA, according to Eurostat instructions):

1. $\text{VolumePp}(t-1) (t) = \text{pricePp} (t-1) \times \text{quantities} (t)$, at farm gate price (Pp) for year (t-1), per channel.
2. $\text{Index of volumePp} (t/t-1) = \text{VolumePp}(t-1) (t) / \text{ValuePp} (t-1)$, at farm gate price (Pp) for year (t-1), per channel.
3. $\text{VolumePb}(t-1) (t) = \text{Index of volumePp} (t/t-1) \times \text{ValuePb} (t-1)$, at base price (Pb) for year (t-1), per channel.
4. The value of total production at the base price for the previous year is obtained by aggregating channels.

For a given product, the value of production at constant base prices

for a reference year (e.g. 2000) by product and channel is obtained by linking volume indexes, using the following procedure:

1. Linking of all annual variations in volume (index of volumePp (t_i/t_{i-1}) above) between year (t) and the reference year, by channel: this gives the change in volume between year (t) and the reference year, hence the index of volumePp (t/reference year).
2. $\text{VolumePb}(\text{reference year}) (t) = \text{index of volumePp (t/reference year)} \times \text{ValuePp (reference year)}$, at base price (Pb) for the reference year, per channel.
3. The channels are then aggregated to obtain the total value of production at constant base prices for the reference year (e.g. 2000) for year (t) of the product concerned. We also talk about "production volume" at constant base prices for a reference year.

Box 3: Own account production of cultivated assets, "fixed asset" livestock

The value of own-account production of fixed capital assets of the type "cultivated assets, fixed asset livestock", or the natural growth of the herd of production livestock, is calculated using the following indirect method:

Natural growth = Gross fixed capital formation
- Imports (= zero, as imports are booked under inventory of work in progress)

+ Exports* or other end-use
+ Slaughter (including domestic slaughter)

*Tariff headings for foreign trade:

Breeding cattle: 0102.1010 to 0102.1099

Breeding pigs: 0103.1010 to 0103.9120

For practical reasons, gross fixed capital formation is also evaluated using an indirect method:

Gross fixed capital formation (GFCF) = Reform discount

+ Other losses on production livestock

+ (final stock – initial stock)

+ Costs of change in ownership (transport)

The reform discount is equivalent to the difference between the asset value of the "fixed asset" livestock at the slaughter value of the slaughter animals. This reform discount is calculated only for breeding cattle (cows, stock bulls) and pigs (sows and boars). The following factors (ratio of capital price to slaughter price) have been defined for Switzerland: 1.20 for cattle and 1.60 for pigs.

Other losses of "fixed asset" livestock are not recorded specially, and changes in herdage are evaluated in a similar way to changes in inventory (see box 4).

The other categories and species of animals are raised almost exclusively for fattening (slaughter animals), where the reform

discount is accordingly zero.

Box 4: Changes in stock numbers (work in progress)

Changes in livestock numbers (work in progress) in year t are calculated as the difference between the herdage for "April/May $t+1$ " and "April/May t " as per the annual Farm structure survey records (FSO), plus any extraordinary losses. Valuation at current prices is carried out with the weighted average price for year t .

Box 5: Livestock transfer costs: trade and transport margins

Trade in production livestock between units within agriculture leads to transaction costs that are recorded as gross fixed capital formation (intermediation and trade margins, transport costs, etc.). However, the value of the animal is not recorded in gross fixed capital formation (GFCF), as the purchase/sale takes place in the same year.

The same rule applies for inventory livestock (work in progress): the value of the animal sold/purchased is not recorded under production. However, the costs of transferring stock animals are recorded as "negative sales" (channel of sales within the branch between agricultural units). The trade and transport margins are calculated on the basis of Astag rates (livestock transport) plus a trade margin (for production livestock) or intermediation (for slaughter animals). Since there are no statistics on the number of transactions, the number of these is estimated in the context of the EAA by the SFU.

C2.16.4 *Adjustments*

None.

C2.16.5 *Estimations*

On the farm domestic slaughters and transportation margins are expert values.

C2.16.6 *Numerical example*

Please see numerical example (excel sheet: C2.16_17_20_Animals_GFCF, C2.16_11100)

C2.16.7 *Subsidies and taxes on products*

No contributions have been paid linked to bovine production since 1999. The following contributions were made previously:

- "Other large bovines":
- until 1996: cattle disposal measures

- until 1998: measures to support the cattle market.
- "Calves":
- until 1998: contributions to holders of cows whose milk is not marketed (nurse and suckler cows).

C2.16.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.16.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 11100 (and non compulsory items 76400, 76500).

C2.16.10 Please specify the method on the basis of which cattle output and its components have been calculated.

Please see chapter C2.16.3

C2.17 PIGS

C2.17.1 Data sources

Quantities, details specific to pigs
Animals imported for slaughter (tariff headings 0103.9220 to 0103.9290) are not taken into account as they go straight to the agri-food industry.

As the statistical sources for slaughter (FVO, Proviande) make no distinction between categories of pigs, the number of sows slaughtered has to be estimated (SFU).

Prices

Prices for slaughter animals are obtained from Proviande and SFU price records. They are weighted according to the proportions of the various labels. The costs of transport between agricultural holdings and the abattoirs are deducted. These adjusted prices are multiplied by the average slaughter weights, so as to obtain a price per animal ready for consumption.

Sales outside the branch for export (tariff headings 0103.9190 to 0103.9290) are valued at the price of sales outside the branch on the domestic market.

C2.17.2 Level of detail

Pigs are divided into two headings: breeding animals (sows and boars) and other pigs. Sows and boars are registered as fixed cultivated assets (production livestock) whereas other pigs are counted as stock animals.

C2.17.3 Calculation procedure

For "fixed asset" livestock: value = own-account production of fixed capital assets (see chapter C2.16.3).
For stock animals: value = price x quantity (see chapter C2.16.3).

Value at the previous year's prices
For "pigs" production price index (FSO) is used to calculate the volume of production, i.e.: $\text{Volume}(t) \text{ at price}(t-1) = \text{Value}(t) / \text{Price index}(t/t-1)$

C2.17.4 Adjustments

None.

C2.17.5 Estimations

On the farm domestic slaughters and transportation margins are expert values.

C2.17.6 Numerical example

Please see numerical example (excel sheet: C2.16_17_20_Animals_GFCF, C2.17_11200)

C2.17.7 Subsidies and taxes on products

None.

C2.17.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.17.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 11200.

C2.17.10 Please specify the method on the basis of which pig output and its components have been calculated.

Please see C2.17.3

C2.18 POULTRY

C2.18.1 *Data sources*

Quantities

The quantity produced is measured in head of livestock. Production is an aggregate of various flows of goods. The information on imports and exports of animals is taken from foreign trade statistics (DGC). Only chickens (tariff headings 0105.1100 and 0105.9100 to 0105.9300) and turkeys (tariff headings 0105.1200, 0105.1900 and 0105.9900) are recorded under separate headings. Imported animals are regarded as work in progress, and deducted from domestic poultry sales. Imported chickens are classed under the (main) heading "chickens".

Slaughter of poultry is calculated indirectly using the poultry meat statistics (calculated by the SFU in cooperation with the poultry branch). The number of birds processed by the producer for own consumption or direct sale is estimated and recorded in the EAA as inseparable non-agricultural secondary activities.

Prices

Prices charged for poultry (live weight) are taken from abattoirs. The costs of transport between agricultural holdings and the abattoirs are deducted. These adjusted prices are multiplied by the average slaughter weights, so as to obtain a price per animal ready for consumption. Prices for imports and exports are taken from foreign trade statistics (DGC).

C2.18.2 *Level of detail*

The "poultry" heading of the EAA is broken down into three categories: "breeding and laying animals", "chickens" and "other poultry" (mainly turkeys). Hatching eggs are work in progress for poultry production, like piglets in pig production. As production and use over a given year take place in a regular manner and is maintained more or less at the same level (initial flock = final flock) hatching eggs are not valued. However, imports of cocks are recorded as "negative sales".

C2.18.3 *Calculation procedure*

For stock animals: value = price x quantity (see C2.16.3).

C2.18.4 *Adjustments*

None.

C2.18.5 Estimations

The number of animals which are processed by the producer for own consumption and direct sale is estimated. The monetary value of this output component is recorded in the EAA-item „non.agricultural secondary activities, non separable“.

C2.18.6 Numerical example

Please see numerical example (excel sheet: C2.18_11500)

C2.18.7 Subsidies and taxes on products

None.

C2.18.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.18.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 11500 (and non compulsory item: 77300).

C2.18.10 Please specify the method on the basis of which poultry output and its components have been calculated.

Please see C2.18.3.

C2.18.11 Please provide details on the treatment of hatching eggs (see also: eggs)

Hatching eggs are work in progress of poultry production process. Production and use take place in the same year, regularly and at a comparable level (initial stock = final stock): therefore, the thatching eggs are not valuated.

C2.19 SHEEP AND GOATS

C2.19.1 Data sources

Quantities, details specific to sheep and goats
Animals imported for slaughter (tariff headings for sheep: 0104.1020 to 0104.1090, goats: 0104.2020 to 0104.2090) are not taken into account as they go straight to the agri-food industry. While slaughter weights for sheep are reported by Proviande, the weights for goats are not and are estimated by experts.

Prices
Prices charged for slaughter sheep are collected by Proviande, with an estimated breakdown by slaughter categories. For goats, the average price is obtained by weighting the price for kids (Proviande) with those for cull goats (Agridea price list or expert estimate).

The costs of transport between agricultural holdings and the abattoirs and any flat-rate deductions are deducted. These adjusted prices are multiplied by the average slaughter weights, so as to obtain a price per animal ready for consumption.

Sales outside the branch for export (tariff headings 0104.10_ and 0104.20_) are valued at the price of sales outside the branch on the domestic market.

C2.19.2 Level of detail

Sheep are bred mainly for meat. The slaughter statistics and the market make no distinction between lamb and mutton. Goats are bred for both milk and meat (especially kid meat). The value of production is nevertheless modest, and the slaughter statistics make no distinction between young and cull animals. Accordingly, sheep and goats are recorded as stock animals.

C2.19.3 Calculation procedure

For stock animals: value = price x quantity (see C2.16.3).

C2.19.4 Adjustments

None.

C2.19.5 Estimations

On the farm domestic slaughters are expert values. As slaughter statistics doesn't make the distinction between young animals (lams, young goats) and adult animals, those proportions are estimated.

C2.19.6 Numerical example

Please see numerical example (excel sheet: C2.19_11400a, C2.19_11400b)

C2.19.7 Subsidies and taxes on products

No contributions have been paid since 1999. Previously, premiums were paid to encourage livestock sales.

C2.19.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.19.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 11400.

C2.19.10 Please specify the method on the basis of which the output of sheep and goats and its components have been calculated.

Please see C2.19.3

C2.20 EQUINES, OTHER ANIMALS

C2.20.1 Data sources

EQUINES
Quantities, details specific to horses
Animals imported for slaughter (tariff headings 0101.9091 to 0101.9092) are not taken into account as they go straight to the agri-food industry. Likewise, animals for sport and leisure are not recorded (tariff headings 0101.9095 to 0101.9099).
As slaughter weights are not reported, they are estimated by experts. It is assumed that there are no domestic slaughters of horses.
Prices
Guide price for slaughter animals (results of negotiations between breeders of franc montagnard horses with horse meat importers) are weighted in accordance with an estimated distribution of marketing classes and age. The costs of transport between agricultural holdings and the abattoirs are deducted. These adjusted prices are multiplied by the average slaughter weights, so as to obtain a price per animal ready for consumption.
Sales outside the branch for export (tariff headings 0101.1011 to

0101.9092) are valued at the price of sales outside the branch on the domestic market.

OTHER ANIMALS

Quantities

The quantity produced is measured in head of livestock. As these categories of livestock have no customs tariff numbers and are not of major importance, it is assumed that foreign trade is nil.

Slaughter of rabbits, deer and stags is estimated on the basis of changes in stock numbers (FSO). The number of animals processed by the producer for own consumption or direct sale is recorded as inseparable non-agricultural secondary activities. Colonies of bees are treated as cultivated assets ("fixed asset" livestock), and annual growth for own-account production of fixed capital assets is estimated. Annual replacement of colonies represents 30% of their population according to the Farm structure surveys.

Prices

Prices of rabbit by slaughtered weight are reported by the SFU and expressed as unit prices per head. The guide prices in the Agridea price list are used as a basis for calculating prices of deer and stags. Colonies of bees are valued using the guide price published in the beekeeper's calendar.

C2.20.2 *Level of detail*

As horses have a limited weight in the economy and they are aggregated into a single category in the slaughter statistics, no subdivision into "breeding horses", "other horses" and "donkeys, mules and hinnies" was made. There is also a clear separation between production livestock and horses for sport or leisure, so that horses reported in the Farm structure survey (FSO) have been regarded as stock animals in the EAA.

Other animals include rabbits, deer and bees. However, the EAA cover only the production of units in the universe of Farm structure surveys (FSO).

C2.20.3 *Calculation procedure*

For horses (all recorded as stock animals): value = price x quantity (see chapter C2.16.3).

For bees: value = own-account production of fixed capital assets (see chapter C2.16.3).

For rabbits, deer and stags (stock animals): value = price x quantity (see chapter C2.16.3).

C2.20.4 *Adjustments*

None.

C2.20.5 Estimations

EQUINES

As the slaughter statistics doesn't make the distinction between foals and adult horses, those proportions are estimated.

OTHER ANIMALS (BEES, RABBITS, DEER AND STAGS)

The number of slaughters are estimated based on the livestock numbers, the holder numbers, partial informations about slaughtering and extrapolations.

On the farm domestic slaughtering are experts values.

The output value of deer slaughters (processed to meat on the farm) is recorded in the item "Non-agricultural secondary activities, non separable".

C2.20.6 Numerical example

Please see numerical example (excel sheet: C2.16_17_20_Animals_GFCF, C2.20_11300, C2.20_11900)

C2.20.7 Subsidies and taxes on products

No contributions have been paid since 1999. Previously, premiums were paid to encourage livestock sales (equines).

C2.20.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.20.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 11300.

C2.20.10 Products covered by the item 'other animals' (code 11900).

Bees, rabbits, deer and stags.

C2.20.11 Please specify the method on the basis of which the output of equines and of other animals, and their components have been calculated.

Please see C2.20.3

C2.21 MILK

C2.21.1 *Data sources*

Quantities

Definitive quantities of milk are taken from the dairy statistics, produced by Fiduciaire de l'économie laitière Sàrl (TSM) [Trustee of dairy economy], the Fédération des Producteurs Suisses de Lait (PSL) [Swiss dairy producers' association] and the SFU. On the other hand, the estimate for the current year is based on monthly data from the SBV.

Milk for feed on the holding (calves) is not recorded (or valued in monetary terms) as the calf fattening and milk production activities are mainly covered by the same class of economic activity (014100 Raising of dairy cattle, as per NACE Rev.2).

The quantities processed for own consumption are based on the statistics of the TSM (processing of summer pasture milk) and are recorded under inseparable non-agricultural secondary activities.

Prices

Monthly prices by region and processing channel (reported by FOAG's market observation bureau) are weighted with the corresponding monthly milk deliveries.

C2.21.2 *Level of detail*

This heading relates to raw cow's milk only. Milk from other categories of animals (goats, ewes, mares) plays a secondary role, and it is assumed that these types of milk are processed directly by producers and are therefore recorded as inseparable non-agricultural secondary activities.

C2.21.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

Value at the previous year's prices

The "milk" production price index (FSO) is used to calculate the volume of production (see table 5), i.e.: $\text{Volume}(t) \text{ at price}(t-1) = \text{Value}(t) / \text{Price index } (t/t-1)$.

C2.21.4 *Adjustments*

None.

C2.21.5 *Estimations*

None.

C2.21.6 *Numerical example*

Please see numerical example (excel sheet: C2.21_12100)

C2.21.7 *Subsidies and taxes on products*

Subsidies on products
Supplements for non-silage (fodder without the use of silage fodder for milk to be processed into cheese) are the only product subsidies paid directly to dairy holdings. Until 1999 there was compensation for the ban on silage (with a transitional measure in 1999).
Taxes on products
The tax on the surplus deliveries of dairy producers is the only product tax for milk. Until 1999, there was also participation by dairy producers in handling costs (co-responsibility).

C2.21.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.21.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 12100.

C2.21.10 *For which years have penalties for exceeding milk quotas been applied? Which are the corresponding amounts?*

Does not apply for Switzerland.

C2.22 EGGS

C2.22.1 *Data sources*

Quantities
Definitive quantities are taken from the Aviforum egg statistics. On the other hand, the estimate for the current year is based on monthly data from the SFU. Own-consumption of eggs by agricultural households is estimated by the SFU.
Prices
Prices (observed on the market by FOAG and the SFU) are weighted

according to the size of the eggs and the sales and processing channel.

C2.22.2 Level of detail

This heading covers eggs for human consumption only. Production of eggs of other bird species has been taken as negligible.

C2.22.3 Calculation procedure

Value = price x quantity (see excel sheet).

C2.22.4 Adjustments

None.

C2.22.5 Estimations

Own consumption of agricultural household is estimated.

C2.22.6 Numerical example

Please see numerical example (excel sheet: C2.22_12200)

C2.22.7 Subsidies and taxes on products

None

C2.22.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.22.9 Unit values

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values:12200.

C2.22.10 Please provide details on the treatment of hatching eggs (see also: poultry).

Hatching eggs are work in progress of poultry production process. Production and use take place in the same year, regularly and at a comparable level (initial stock = final stock): therefore, the hatching eggs are not valuated.

C2.23 OTHER ANIMAL PRODUCTS (RAW WOOL, SILKWORM COCOONS, OTHERS)

C2.23.1 *Data sources*

Quantities

Average honey production is reported by the regional beekeeping associations, and extrapolated for the number of bee colonies. Wax production is estimated in proportion to honey produced (10%). Wool production is reported by the FIWO association (Förderung innovativer Wollverarbeitung Ostschweiz, Promotion of Innovative Wool Processing in East Switzerland) and by the enterprise Nawarotec (NWT). Own consumption is estimated by the SBV.

Prices

Honey and wax prices are based on the guide prices of the beekeepers' calendar, adjusted as required by market conditions. Farm-gate wool prices are based on the FIWO and NWT net prices less transport costs (weighted by the proportions of those two firms).

C2.23.2 *Level of detail*

This heading covers wool, honey and beeswax. In Switzerland, wool is an inevitable product of sheep meat production. In beekeeping, the EAA record only the proportion of bee colonies of the units in the farm structure survey (FSO), most being recorded in the account for "small agricultural production units".

C2.23.3 *Calculation procedure*

Value = price x quantity (see excel sheet).

C2.23.4 *Adjustments*

None.

C2.23.5 *Estimations*

Wool and honey for own consumption / own transformation by the agricultural households as well as honey and wax production are estimates. Those items are compiled based on the number of holders, losses of animals, average yields etc.

C2.23.6 *Numerical example*

Please see numerical example (excel sheet: C2.23_12910, C2.23_12930)

C2.23.7 *Subsidies and taxes on products*

None.

C2.23.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.23.9 *Unit values*

According to the EAA methodology (handbook). Total output in value (to basic prices or to producer prices) is divided by total output quantity. Detail items with unit values: 12910 (and non compulsory items: 77900, 78000).

C2.23.10 *Products covered by the item 'other animal products' (code 12930).*

The position 'other animal products' covers the production of honey and of bee wax (unsignificant quantities).

C2.24 AGRICULTURAL SERVICES (INCLUDING RENTING OF MILK QUOTA)

C2.24.1 *Data sources*

The economic valuation of agricultural services is based on several data sources:

- FADN
- Agricultural Input Price Indices
- VAT statistics
- Business censuses
- Farm Structure Surveys

Until 2009, renting of milk quotas has been valued, basing on following sources:

All rents of milk quotas (in tonnes, according to the dairy quota administration, FOAG) are multiplied by the average renting price. As there are no records of renting prices, these prices are estimated on the basis of information provided by the Swiss dairy producers' association (PLS) and the specialised press.

C2.24.2 *Level of detail*

This heading covers provision of agricultural services, i.e. contract work for other agricultural holdings.

- Crop-related services: sowing, harvesting, plant treatments, packaging of plant products for primary marketing.
- Livestock-related services: artificial insemination, cleaning of stables and poultry houses, cutting and care of hooves.

Renting of milk quotas has been suspended in 2009, as the Swiss milk quota system (controlled by the State) has been abandoned.

C2.24.3 *Calculation procedure*

Agricultural services are provided by two types of enterprise:

1. Specialist agricultural service enterprises.
2. Agricultural holdings (with crops and/or animals) that have a secondary activity for providing agriculture-related services.

Services also have to be separated into:

- Agricultural services in the restricted sense, i.e. provided to agricultural holdings.
- Agricultural services (such as livestock breeding or boarding) provided to units outside the EAA universe.
- Non-agricultural secondary activities inseparable from the main agricultural activity, hence inseparable non-agricultural services provided to units outside the EAA universe.

Agricultural services are evaluated on the basis of the resource-use balances. Production and also intermediate consumption of agricultural services are valued on the basis of monetary values (without quantities or prices).

Service resources (production) are evaluated firstly on the basis of the turnover of the specialist enterprises (branches 016100 Support activities for crop production and 016200 Support activities for animal production of the VAT statistics, FFA) and secondly of the gross yield in services by agricultural holdings according to the FADN/FSS/EAA extrapolation (see chapter 4.5), where the following extrapolated FADN accounting headings:

- Work for third parties (eligible proportion: 100%)
- Various yields of cattle breeding (50%)
- Ancillary income, self employment (60%)

are aggregated (using the eligible percentage).

Uses, hence intermediate consumption by EAA units in agricultural services, are based on the FADN/FSS/EAA extrapolation, where the following extrapolated FADN accounting headings:

- Work by agricultural third parties (eligible proportion: 100%)
- Various plant production costs (60%)
- Various livestock costs (30%)
- Machinery repairs (10%)

• Land improvement maintenance (10%) are aggregated (using the eligible percentage). The balance of resources (always positive) corresponds to resources that have not been acquired by the EAA units. It is recorded under inseparable non-agricultural secondary activities.

Value at the previous year's prices

A price index for each of the three major categories of agricultural services (crops, livestock breeding and boarding) is calculated on the basis of the composition and evolution of production costs (machinery, wages and salaries, fuel, etc.), on the composition of services (pro-rata for crop and livestock types) and the unit price of certain services in the Agridea price list. These specific indexes are used to calculate production volume, i.e.: $\text{Volume}(t) \text{ at price}(t-1) = \text{Value}(t) / \text{Price index } (t/t-1)$.

Until 2009, renting of milk quotas has been valued (see C2.24.1).

C2.24.4 Adjustments

None.

C2.24.5 Estimations

The evolution of output of specialised agricultural services contractors of the years t-2, t-1 and t is estimated, as VAT statistics are available only after about 3 years.

C2.24.6 Numerical example

Please see numerical example (excel sheet: C2.24_25_15100_17900)

C2.24.7 Subsidies and taxes on products

None.

C2.24.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.24.9 Unit values

Doesn't apply

C2.25 NON-AGRICULTURE SECONDARY ACTIVITIES (INSEPARABLE)

C2.25.1 *Data sources*

Quantitative yields from processing fruit juices, live weight of animals in meat products and milk in cheese based on SFU estimates. Food products deriving from the processing of agricultural products on the holding are valued using the usual guide prices (Agridea price list). The price of cheese is taken from the consumer price index (FSO).

Other sources include associative data for agro-tourism (sleep on straw), VAT statistics, FADN.

C2.25.2 *Level of detail*

This heading values production of agricultural goods processed on the holding regarded as inseparable from the main agricultural activity. These are processed products derived from the following primary agricultural products:

- Fruit juices from cider apples and pears,
- Meat products from domestic abattoirs from cattle, pigs, sheep, goats, poultry, rabbits, deer and stags,
- Mountain cheese produced by processing cow's, sheep's and goat's milk.

Rural tourism

Of the whole range of rural tourism offered by agricultural holdings and households in Switzerland, only the "Sleep on straw" offering (without breakfast) is eligible in the EAA, all the other offerings being classed as clearly separable from the agricultural holding, and being the sole domain of the agricultural household.

The number of nights stayed is provided by the secretariat managing "Sleep on straw", and multiplied by the unit price (without breakfast).

Other goods and services

The value of production of other inseparable non-agricultural secondary activities (goods and services) is obtained by deduction from the resource-use balances in agricultural services. The production process for these activities relies on the production factors of the agricultural holding (machinery, buildings, land, labour) and are assimilated to the three "crop-related" services (pruning of trees and hedges, roadside maintenance, snow clearance), livestock boarding (horses) and livestock-related services for non-agricultural households holding farm animals (sheep, goats, poultry, etc.).

C2.25.3 *Calculation procedure*

Transformation of agricultural products:
value = price x quantities

Other non agricultural secondary activities, inseparable:

- agro-tourism: value = price x quantities (number of overnights)
- other goods and services: please see chapter C2.24.3, as this component is calculated together with agricultural services, in the balance between resources and uses.

C2.25.4 *Adjustments*

None.

C2.25.5 *Estimations*

Evaluation of other non agricultural secondary activities (inseparable) is based on a resource-use balance, which relies partly on estimated experts values.

C2.25.6 *Numerical example*

Please see numerical example (excel sheet: C2.24_25_15100_17900, C2.25_17161)

C2.25.7 *Subsidies and taxes on products*

None.

C2.25.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities and prices.

C2.25.9 *Unit values*

Doesn't apply

C2.25.10 *Exhaustive list of activities covered*

The exhaustive list cannot be given, as miscellaneous positions of FADN are used.

- Transformation of agricultural goods (exhaustive):
 - fruit juice from apples and pears

- meat products from bovine, pigs, equines, sheep, goats, poultry
- dairy products from cow milk, goat milk and sheep milk
- Other non agricultural secondary activities, inseparable:
 - agro-tourism (sleep on straw)
 - other, including:
 - crop-analog services outside agriculture (pruning of trees and hedges, roadside maintenance, snow clearing, etc.)
 - animal husbandry analog services outside agriculture (horse pension, sheep and goat husbandry for hobby holders, etc.)

C2.25.11 Which criterion has been used for assessing the inseparability of these activities?

In theory the EAA criterion, stipulating that the production factors used primarily for agricultural production are also used for inseparable non agricultural secondary activities. In practice, mainly the "FADN criterion", as these activities generate production costs which cannot be separated from the bulk of costs covering mainly agricultural production.

C2.25.12 What is the relative importance of each of these inseparable activities (e.g. "the share of agro-tourism services recorded as inseparable in the EAA amounts to 30 % of all agro-tourism services").

Proportions:

41% - Transformation of agricultural goods (exhaustive):

- 8% - fruit juice from apples and pears
- 9%- meat products from bovine, pigs, equines, sheep, goats, poultry
- 24%- dairy products from cow milk, goat milk and sheep milk

59% - Other non agricultural secondary activities, inseparable:

- (<1%) - agro-tourism (sleep on straw)
- 59% - other, including:
 - 35% - crop-analog services outside agriculture (pruning of trees and hedges, roadside maintenance, snow clearing, etc.)
 - 24% - animal husbandry analog services outside agriculture (horse pension, sheep and goat husbandry for hobby holders, etc.)

PART D - COMPONENTS OF THE PRODUCTION ACCOUNT: INTERMEDIATE CONSUMPTION

D1 GENERAL

D1.1.1 Short overview on data sources used for the individual intermediate consumption items.

The evaluation of intermediate consumption is carried out for each of the four domains in the EAA universe (classical agriculture, nurseries, flower-growing, agricultural services by specialist enterprises). The methods may be grouped into distinct categories:

- FADN/FSS/EAA extrapolation
- The offsetting entries resulting from the value of production (output) by consumption within the branch and sales between EAA units (moving from base price to purchase price). The offsetting entries are used at current prices and volume (at the prices of the previous year, at constant prices of a reference year such as 1990, 1995, 2000, 2005 and 2010).
- Keys for nurseries (#P), flower-growing (#F) and specialist agricultural services (#Services), based on data provided by JardinSuisse (branch organisation for Swiss gardening holdings), VAT statistics, FADN.
- Specific models and sources (wine-growing and making, vehicle costs, summer grazing costs, plant health products (pesticides), fodder balance), based on winery production costs (Agridea), FADN, SFU estimates, FOAG data, etc.
- Adjustments (extraordinary expenses, deduction of share in costs of drying carried out by the industry, seed).

BACKGROUND INFORMATION: METHODS

A) FADN/FSS/EAA EXTRAPOLATION

Centralised analysis of accounting data (Agroscope, ART, FADN) provides annual results of the agricultural analytical accounts network, part of this information being taken over in the EAA. The coverage of the accounts does not match the EAA exactly, as ornamental horticulture and specialist agricultural service enterprises are not represented and the minimum holding size represented in FADN is larger than the minimum standard for the farm structure surveys (FSS). The FADN/FSS/EAA extrapolation will accordingly take the FADN results by stratum (type of holding and region) and weight them, then extrapolate using the FSS breakdown of holdings/areas/herds. The results of the

FADN/FSS/EAA extrapolation are used to help evaluate the following EAA accounting items (mainly in the "classical agriculture" field):

- Production and intermediate consumption of agricultural services,
- Intermediate consumption,
- Compensation of employees,
- Taxes on production,
- Interest and rents,
- Fixed capital consumption (net premium for property insurance).

B) SPECIFIC KEYS FOR HORTICULTURE AND AGRICULTURAL SERVICES

B1) The FADN/FSS/EAA extrapolation covers what we term "classical agriculture". For the fields of horticulture (nurseries, flower-growing) and enterprises specialising in agricultural services, specific keys have been developed to evaluate production costs (see chapters C2.24 and C2.25). These keys allow an accounting sequence (current operations) to be established for each of these three areas, apportioning their production value between intermediate consumption, compensation of employees, taxes on production and interest payable or receivable.

B2) Nurseries

Key #P is based principally on the key figures from the accounts of nursery enterprises of the APS (Swiss Nurseries Association, Jardin Suisse since 2007).

B3) Flower-growing

Key #F is based principally on the key figures from the accounts of "wholesale" nursery enterprises of the Association des maîtres horticulteurs suisses (Swiss Master Gardeners' Association, Jardin Suisse since 2007).

B4) Specialist agricultural services

The #Services key is established in two stages: compensation of employees (see chapter C2.24) and income from self-employed work (including a profit margin) are deducted from the value of production. The balance of uses obtained is apportioned on the basis of a cost structure inspired by the "arable crops" stratum of the FADN/FSS/EAA extrapolation, where expenditure related to machinery and vehicles has been given priority over that related to the costs of livestock and buildings.

C) MODELS AND SPECIFIC SOURCES

C1) Wine-growing and making

Intermediate consumption in wine-growing (growing and harvesting of vines) is included in the costs of "classical agriculture". However,

the FADN/FSS/EAA extrapolation does not take account of costs related to wine-making, which are calculated specifically linked to the evaluation of wine production. The production costs of wine-growing and making are provided by Agridea (formerly SRVA). Of the unit costs relating to the stages of pressing, vinification and packaging, only intermediate consumption goods (supplies, maintenance) and investment goods (cellaring and packaging equipment) are eligible. The eligible unit costs are multiplied by the corresponding quantities processed at the production stages. Accordingly, intermediate consumption and gross fixed capital formation specific to wine-growing are obtained.

C2) Vehicles

The FADN/FSS/EAA extrapolation provides intermediate consumption allowable as professional use of vehicles for the holding (i.e. excluding private household use). These total costs are apportioned using a TCS calculation key.

C3) Summer grazing costs

Although summer grazing relates to units with a seasonal activity and is not covered by the Farm structure survey (FSO), they are part of the EAA universe. The FADN/FSS/EAA extrapolation provides aggregate summer grazing costs invoiced annually to holdings. Based on information provided by the Swiss alpine economy society (SAV – Schweizerischer Alpwirtschaftlicher Verband), these costs are broken down as follows:

- 35% intermediate consumption:
 - of which 17.5% rents for buildings,
 - of which 17.5% other costs (supplies, miscellaneous),
- 50% compensation of employees,
- 15% rent (pasture).

D2 INDIVIDUAL INTERMEDIATE CONSUMPTION ITEMS

D2.1 SEEDS AND PLANTING STOCK

D2.1.1 *Data sources*

- a) "Classical" agriculture:
 - FADN: seeds and plants
 - Agridea, production costs in wine production (renewal of vineyards)
 - Offsetting entries of output (use channel 12.1, intra-branch flows between holdings): seeds for gardening, fruit and vineyard nurseries (see chapters C2.9 and C2.15)
- b) Horticulture (nurseries and floriculture):
 - JardinSuisse: seeds and plants purchased outside of agriculture
 - Offsetting entries of output (use channel 12.1, intra-branch flows

between nurseries): ornamental nurseries (see chapters C2.9)
c) Agricultural services (specialised contractor enterprises):
- irrelevant

D2.1.2 Level of detail

The published detail is the distinction between seeds and plants purchased inside and outside of agricultural branch.

D2.1.3 Calculation procedure

a) "Classical" agriculture:
- FADN/FSS/EAA extrapolation (see D1.1.1)
- Offsetting entries of output
b) Horticulture (nurseries and floriculture):
- Horticulture keys (see D.1.1.1)
- Offsetting entries of output

D2.1.4 Adjustments

None.

D2.1.5 Estimations

None.

D2.1.6 Numerical example

Please see numerical example (excel sheet D2_19000)

D2.1.7 Subsidies and taxes on products

None.

D2.1.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.1.9 Unit values

Doesn't apply.

D2.1.10 Intra-unit/branch consumption: details on the calculation of intra-unit/branch consumption (quantities, prices, subsidies etc.)

Please see D2.1.1 and D.2.1.3

D2.2 ENERGY; LUBRICANTS

D2.2.1 Data sources

- a) "Classical" agriculture:
 - FADN: electrical power, fuels and lubricants (agricultural machinery), motor vehicle costs (private car – see chapter D1.1.1, part attributable to the holding), heating fuels
- b) Horticulture (nurseries and floriculture):
 - JardinSuisse: energy
- c) Agricultural services (specialised contractor enterprises):
 - Specific key (based on FADN and VAT statistics)

D2.2.2 Level of detail

Electricity, other

D2.2.3 Calculation procedure

- a) "Classical" agriculture:
 - FADN/FSS/EAA extrapolation (see D1.1.1)
- b) Horticulture (nurseries and floriculture):
 - Horticulture keys (see D.1.1.1)
- c) Agricultural services key (see D.1.1.1)

D2.2.4 Adjustments

None.

D2.2.5 Estimations

None.

D2.2.6 Numerical example

Please see numerical example (excel sheet D2_19000)

D2.2.7 Subsidies and taxes on products

The mineral oil taxes are part of the fuel expenses to purchaser price. On the other hand, the subsidies on fuels (restitution of mineral oil taxes to the primary production, relief subsidies on products by the Federal Customs Administration FCA) are not part of the intermediate consumption valued to purchaser prices.

D2.2.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.2.9 Unit values

Doesn't apply.

D2.2.10 Products covered by the item 'other' (code 19029)

None. Purchases of gas (especially in market gardening and horticulture) and of fire wood (supposed to be negligible) are inseparable of other fuels and are included in item 19023.

D2.3 FERTILISERS AND SOIL IMPROVERS

D2.3.1 Data sources

a) "Classical" agriculture:
- FADN: fertilisers and soil improvers
- FADN, market-gardening in greenhouse on substrate (stone wool)
b) Horticulture (nurseries and floriculture):
- JardinSuisse
c) Agricultural services (specialised contractor enterprises):
- irrelevant

D2.3.2 Level of detail

Compilation is done with following detail (not published):
- fertilisers
- soil improvers

The intra-branch exchanges of manure are not evaluated.

D2.3.3 Calculation procedure

a) "Classical" agriculture:
- FADN/FSS/EAA extrapolation (see D1.1.1)
b) Horticulture (nurseries and floriculture):
- Horticulture keys (see D.1.1.1)

D2.3.4 Adjustments

None.

D2.3.5 Estimations

None.

D2.3.6 *Numerical example*

Please see numerical example (excel sheet D2_19000)

D2.3.7 *Subsidies and taxes on products*

None.

D2.3.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.3.9 *Unit values*

Doesn't apply.

D2.4 PLANT PROTECTION PRODUCTS, HERBICIDES, INSECTICIDES AND PESTICIDES

D2.4.1 *Data sources*

a) "Classical" agriculture:
- Swiss Society of Chemical Industries SSIC (until 2006): plant production products statistics, broken down between classical agriculture, nurseries and flower-growing.
- FADN: plant protection products: in variation from 2007 upwards
b) Horticulture (nurseries and floriculture):
- Swiss Society of Chemical Industries (until 2006): plant production products statistics, broken down between classical agriculture, nurseries and flower-growing.
- JardinSuisse from 2007 (in variation, as percentage of output)
c) Agricultural services (specialised contractor enterprises):
- irrelevant

D2.4.2 *Level of detail*

None.

D2.4.3 *Calculation procedure*

a) "Classical" agriculture:
- until 2006: adjustment of SSIC sales statistics
- since 2007: FADN/FSS/EAA extrapolation (see D1.1.1)
b) Horticulture (nurseries and floriculture):

- until 2006: adjustment of SSIC sales statistics
- since 2007: horticulture keys (see D.1.1.1)

D2.4.4 Adjustments

- The SSIC statistics are adjusted as following (until 2006) :
- cover increase to 100% (SSIC covers about 90% of total use)
 - deduction of 2,5% (Principauty of Liechtenstein)
 - deduction of VAT

D2.4.5 Estimations

None.

D2.4.6 Numerical example

Please see numerical example (excel sheet D2_19000)

D2.4.7 Subsidies and taxes on products

None.

D2.4.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.4.9 Unit values

Doesn't apply.

D2.5 VETERINARY EXPENSES

D2.5.1 Data sources

- a) "Classical" agriculture:
 - FADN: veterinary expenses (including medicaments)
- b) Horticulture (nurseries and floriculture):
 - irrelevant
- c) Agricultural services (specialised contractor enterprises):
 - irrelevant

D2.5.2 Level of detail

None.

D2.5.3 Calculation procedure

"Classical" agriculture: FADN/FSS/EAA extrapolation (see D1.1.1)

D2.5.4 Adjustments

None.

D2.5.5 Estimations

None.

D2.5.6 Numerical example

Please see numerical example (excel sheet D2_19000)

D2.5.7 Subsidies and taxes on products

None.

D2.5.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.5.9 Unit values

Doesn't apply.

D2.6 FEEDINGSTUFFS

D2.6.1 Data sources

Part of the necessary fodder is consumed within the holding or purchased from other agricultural units (see chapter C2), hence as an offsetting entry of output value (moving from the basic price to the purchase price). The other share is purchased from upstream branches, divided into compound feed (including mineral salts) and straight feed. The quantities are extrapolated on the basis of the turnover of the members of the Federation of Swiss Feed Manufacturers (VSF), who represent about half of the market in compound feed. Consumption of mineral salts is estimated on the basis of the livestock. Average prices, taken from the price lists of the major enterprises, are weighted according to the compound products. Adjustments are made to take account of any discounts. The following animal feed is purchased outside the agriculture branch: compound feed, mineral salt mixtures, cereals, milled products, low-fat milk and whey, pulses, corn gluten feed, beet tops, molasses, roughage.

Total feed availability is derived from the fodder balance (SBV), which draws up an inventory of resources-use of all feed raw materials. Each raw material is allocated either to sales of compound feed, sales of straight feed or direct use of fodder on the holding. Straight feed is a balance, as the quantities of compound feed (extrapolation) and own-consumption fodder (offsetting entry of production) are already known. Prices of straight feed are provided directly by the feed trade or taken from Agridea price lists.

a) "Classical" agriculture:

- 19061: Feedingstuffs purchased from other agricultural units: offsetting entries from output (use channel 12.1): feed maize, fodderbeet, hay (see chapter C2.7)

- 19062: Feedingstuffs purchased outside of agricultural branch: Feed Balance (SFU): compound fodder, minerals and salts, cereals, milling products, whey, etc.

- 19063: Feedingstuffs produced and consumed on the holding (intra-consumption): Offsetting entries from output (use channel 07): cereals, fodderbeet, potatoes, pulses, fruit for cide-making (apples and pears), straw (fodder part), grass, feed maize, sugar beet tops (see chapter C1.1.1).

b) Horticulture (nurseries and floriculture):

- irrelevant

c) Agricultural services (specialised contractor enterprises):

- irrelevant

D2.6.2 Level of detail

- 19061: Feedingstuffs purchased from other agricultural units
- 19062: Feedingstuffs purchased outside of agricultural branch
- 19063: Feedingstuffs produced and consumed on the holding

D2.6.3 Calculation procedure

- 19061: Feedingstuffs purchased from other agricultural units: offsetting entries from output (use channel 12.1)
- 19062: Feedingstuffs purchased outside of agricultural branch: please see chapter D2.6.1
- 19063: Feedingstuffs produced and consumed on the holding: offsetting entries from output (use channel 07)

D2.6.4 Adjustments

Adjustments are made to take account of any discounts in the valuation of feedingstuffs purchases from outside the agricultural industry.

D2.6.5 *Estimations*

None.

D2.6.6 *Numerical example*

Please see numerical example (excel sheet D2_19000)

D2.6.7 *Subsidies and taxes on products*

None.

D2.6.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.6.9 *Unit values*

Doesn't apply.

D2.6.10 *Details on the calculation of intra-unit/branch consumption (quantities, prices, subsidies, etc.)*

Please see numerical example (excel sheet)

D2.6.11 *Distinction between both intra-unit consumption and trade between holdings?*

Yes, distinction is made (see D2.6.1 to D2.6.3)

D2.6.12 *Please confirm that the subsidies on products (if applicable) have been deducted when recording the relevant items under intermediate consumption.*

Yes, the subsidies on products (i.e. on fodder potatoes) have been deducted while offsetting the value from output (to basic prices) to intermediate consumption (to purchase prices).

D2.6.13 *Please give information on the link between the values recorded as intra-unit/branch consumption under this heading (code 19061 and 19063) and the relevant output products (or groups of products)*

Output is compiled as the sum of the different use channels, under which the channels 07 (intra-consumption of fodder) and 12.1 (intra-branch transactions on feedingstuffs between agricultural holdings). So there is a complete coherence between resources and uses (as unconsumed fodder is added to stocks, and fodder use on previous crop campaigns are withdrawn from stocks). Furthermore, some fodder and feedingstuffs are sold outside the branch (compound feeds industry, small units, retail and other uses downstream).

D2.7 MAINTENANCE OF MATERIALS

D2.7.1 *Data sources*

- a) "Classical" agriculture:
 - FADN: maintenance of equipment (repairs of machinery and fixed installations)
 - FADN: vehicle (private cars) costs (part attributable to the holding), with detail "maintenance and repairs" according to the specific vehicle key of TCS (Touring Club Switzerland), see chapter D1.1.1).
- b) Horticulture (nurseries and floriculture):
 - JardinSuisse
- c) Agricultural services (specialised contractor enterprises):
 - FADN and VAT statistics

D2.7.2 *Level of detail*

- Detailed compilation, but not published:
- Agricultural machinery
 - Fixed installations
 - Vehicles (cars)

D2.7.3 *Calculation procedure*

- a) "Classical" agriculture:
 - FADN/FSS/EAA extrapolation and vehicle key (see D1.1.1)
- b) Horticulture (nurseries and floriculture):
 - Horticulture keys and vehicle key (see D.1.1.1)
- c) Agricultural services key and vehicle key (see D.1.1.1)

D2.7.4 *Adjustments*

None.

D2.7.5 *Estimations*

None.

D2.7.6 *Numerical example*

Please see numerical example (excel sheet D2_19000)

D2.7.7 *Subsidies and taxes on products*

None.

D2.7.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.7.9 *Unit values*

Doesn't apply.

D2.8 **MAINTENANCE OF BUILDINGS**

D2.8.1 *Data sources*

a) "Classical" agriculture:
- FADN: Repairs in buildings
- FADN: Maintenance of improvements to land (drainage) and roads
b) Horticulture (nurseries and floriculture):
- JardinSuisse
c) Agricultural services (specialised contractor enterprises):
- FADN and VAT statistics (only buildings, as land improvements and roads are irrelevant for landless contractor enterprises)

D2.8.2 *Level of detail*

Detailed compilation, but not published:
- Buildings
- Land improvements (drainage) and roads

D2.8.3 *Calculation procedure*

a) "Classical" agriculture:
- FADN/FSS/EAA extrapolation (see D1.1.1)
b) Horticulture (nurseries and floriculture):
- Horticulture keys (see D.1.1.1)
c) Agricultural services key (see D.1.1.1)

D2.8.4 *Adjustments*

None.

D2.8.5 *Estimations*

None.

D2.8.6 *Numerical example*

Please see numerical example (excel sheet D2_19000)

D2.8.7 *Subsidies and taxes on products*

None.

D2.8.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.8.9 *Unit values*

Doesn't apply.

D2.9 **AGRICULTURAL SERVICES**

D2.9.1 *Data sources*

a) "Classical" agriculture:
- Offsetting entries of output (use channel 12.1, intra-branch flows between holdings): agricultural services (see C2.24)
- Offsetting entries of output (use channel 12.1, intra-branch flows between holdings): rents of milk quotas (see C2.24)
b) Horticulture (nurseries and floriculture):
- not significant
c) Agricultural services (specialised contractor enterprises):
- irrelevant

D2.9.2 *Level of detail*

None (the distinction between rents of milk quotas and other agricultural services is published in the output value details, see C2.24)

D2.9.3 *Calculation procedure*

a) "Classical" agriculture:
- Offsetting entries of output (use channel 12.1, intra-branch flows between holdings): see C2.24

D2.9.4 *Adjustments*

None.

D2.9.5 *Estimations*

None.

D2.9.6 *Numerical example*

Please see numerical example (excel sheet) of chapter C2.24, and D2_19000

D2.9.7 *Subsidies and taxes on products*

None.

D2.9.8 *Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts*

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.9.9 *Unit values*

Doesn't apply.

D2.9.10 *If the values recorded under this heading (code 19090) are different from those recorded under the corresponding output heading (code 15000 ()), please explain the reasons.*

For Switzerland, it is assumed that the imports and exports of agricultural services (near the border) are equivalent, so no adjustment is done at a national level and output and intermediate consumption of agricultural services are equivalent (NOTE: this assumption doesn't apply at a regional level, where NUTS2 or NUTS3 regions can be net exporteurs or net importeurs of agricultural services, but where the sum of all Swiss regions on resource side is equal to the sum of all regional uses of agricultural services).

D2.10 **OTHER GOODS AND SERVICES**

D2.10.1 *Data sources*

a) "Classical" agriculture:
- FADN: small tools, summer grazing costs (see D1.1.1), water, telephone, fax, internet, postage, insurances, miscellaneous costs in

crop and livestock production

- Agridea, production costs in wine production (renewal of vineyards)
- National Accounts: FISIM (financial intermediation services indirectly measured)
- SFU calculations for drying costs, based on cereal balance, feed balance, FADN detailed data and information from the crop drying industry.
- Offsetting entries of output (use channel 08 and 12.1, intra-unit and intra-branch flows between holdings): straw for litter

b) Horticulture (nurseries and floriculture):

- JardinSuisse

c) Agricultural services (specialised contractor enterprises):

- Specific key (based on FADN and VAT statistics)

D2.10.2 Level of detail

Please see D2.10.10.

D2.10.3 Calculation procedure

a) "Classical" agriculture:

- FADN/FSS/EAA extrapolation (see D1.1.1)
- SFU calculations for drying costs,
- Calculation of winery costs based on wine output quantities (see C2.13) and Agridea winery production costs surveys (per volume)
- Offsetting entries from output (straw for litter)
- Specific calculation procedure for FISIM

b) Horticulture (nurseries and floriculture):

- Horticulture keys (see D.1.1.1)
- Specific calculation procedure for FISIM

c) Agricultural services key (see D.1.1.1)

- Specific calculation procedure for FISIM

SPECIFIC CALCULATION PROCEDURE FOR FISIM

The provision of financial services is characterised by very specific means of remuneration, generally grouped into two categories:

1. Explicit invoicing (such as commissions).
2. A share of the differential between interest received (on deposits) and paid (on loans), for which the concept of FISIM (financial intermediation services indirectly measured).

From the viewpoint of the economic accounts for the primary sector, financial services (explicit invoicing and FISIM) are booked as intermediate consumption.

Without going into details here (see methodology of national

accounts), the evaluation of FISIM can be visualised using the reference rate approach, reflecting the pure cost of the loan or borrowing of funds without the provision of a service:

1. The interest charged (on the loan) is composed of the pure interest (to be booked as jobs in the income from the property) and the valued service (FISIM, to be booked as intermediate consumption) as the difference between the amount invoiced and the pure interest. The excess interest therefore corresponds to a financial service purchased by the borrower.

2. The interest received (on the deposit) is equivalent to the difference between the pure interest (to be booked as resources in the income from the property) and the valued services (FISIM, to be booked as intermediate consumption), which corresponds to the amount of interest renounced by the depositor to benefit from the financial service.

FISIM is evaluated by the National Accounts, at current prices, prices for the previous year and prices linked to the reference year (i.e. 2010). The National Accounts notify the share applicable to the branches of the primary sector. The breakdown of the FISIM within the primary sector and the adjustment of interest (resources and jobs) are carried out on the basis of the amount of interest charged and received, at the least aggregated level of the primary sector modules (branches, fields, institutional sectors).

D2.10.4 Adjustments

None.

D2.10.5 Estimations

None.

D2.10.6 Numerical example

Please see numerical example (excel sheet D2_19000)

D2.10.7 Subsidies and taxes on products

None.

D2.10.8 Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts

Same valuation methodology applies for estimates, provisional accounts and definitive accounts. What changes is the information status for quantities, prices and price index.

D2.10.9 Unit values

Doesn't apply.

D2.10.10 Products covered by this item (code 19900)

Followings goods and services are covered by item 19900 (compiled for the different domains "classical agriculture", nurseries, flower-growing, agricultural services):

- 19095 FISIM: financial intermediation services indirectly measured: according to the proportion of EAA agriculture in interest payable and receivable in relation with the whole primary sector (divisions 01, 02 and 03 of NACE Rev.2). Total FISIM for the primary sector are provided by the National Accounts.
- 19910 Straw, litter: offsetting entries from output (see chapter C2.7 and D2.6).
- 19920 Small tools
- 19930 Leasing, rents (buildings, machinery, intangibles)
- 19940 Water costs
- 19950 Postal and telecommunications costs
- 19960 Summer grazing costs n.i.e. (supplies): see chapter D1.1.1
- 19970 Insurance services (service share of total insurance premium: hail, livestock, buildings, accident/public liability, machinery, etc.), including stamp tax (5% of premium) as taxes on products
- 19991 Other goods and services in plant production n.i.e. (miscellaneous plant production costs, wine-making costs – see chapter D1.1.1, drying costs adjustment)
- 19992 Other goods and services in livestock farming n.i.e. (miscellaneous livestock production costs)
- 19999 Other goods and services n.i.e. (miscellaneous overheads of FADN extrapolation, emoluments for financial services, voluntary marketing contributions for different production branches like milk, fruit, cereals).

D3 CALCULATION OF NON-DEDUCTIBLE VAT

D3.1.1 Please specify, if applicable, how non-deductible VAT on intermediate consumption has been calculated.

Doesn't apply

D3.1.2 Please give a numerical example.

Doesn't apply

PART E - COMPONENTS OF THE GENERATION OF INCOME ACCOUNT

E1 COMPENSATION OF EMPLOYEES

E1.1.1 Data sources

The compensation of employees working in agriculture (EAA), comprising gross wages and salaries (ESA2010: D.11, in cash and in kind) and employer's social contributions (ESA2010: D.12), is evaluated by domain:

a) Classical agriculture:

The FADN/FSS/EAA extrapolation (see chapter D1.1.1) provides sub-categories of the compensation of employees of "conventional" agricultural units, based on the following extrapolated FADN indicators:

- Wages in cash
- Maintenance costs, payments in kind
- Leasing and other labour costs
- Social contributions

b) Horticulture (nurseries and flower-growing):

Compensation of employees is evaluated using specific keys for the fields of nurseries and flower-growing (see chapter D1.1.1), i.e. in proportion to the output value.

c) Specialist agricultural service enterprises (see chapters C2.24 and D1.1.1):

Compensation of employees in the field of specialist agricultural service enterprises is evaluated by multiplying full-time equivalent jobs (reported for primary-sector enterprises, FSO) by the gross average wage for the "vehicle trade and repair" branch (wage statistics, FSO). Two wage levels are weighted: level 1 for employed managers (owner/managers of enterprises organised as companies) and level 2+3 for other employed persons. These gross monthly salaries are annualised (13 months' pay) and increased by 20% to take account of all social contributions.

d) Summer grazing:

The personnel taken on solely for the summer grazing season in the mountains by corporations and other mountain owners is not recorded in the field of classical agriculture. The compensation of the mountain personnel is nevertheless part of the summer grazing costs invoiced to these holdings on a yearly basis, and is deducted from the FADN/FSS/EAA extrapolation (a 50% share as per SAV, see chapter D1.1.1).

E1.1.2 Level of detail

For EAA, only the aggregate item 23000 Compensation of employees (D.1 according to ESA2010 classifications) is published. In the bridge to National Accounts, this item is available according to ESA2010 classification (D.11, D.12).

E1.1.3 Calculation procedure

Please see E1.1.1

E1.1.4 Adjustments

Please see E1.1.1

E1.1.5 Estimations

Please see E1.1.1

E1.1.6 Numerical example

Please see numerical example (excel sheet: E1_23000)

E1.1.7 List of items covered (see particularly Annex 1 of Regulation (EC) No 138/2004, paragraph 3.016 and 3.018)

All the relevant items are covered, if they apply, as they have to be recorded according to Swiss revenue tax declaration [yes]:

3.016. Gross wages and salaries in cash comprise the following components:

[yes] (a) direct basic wages and salaries (payable at regular intervals);

[yes] (b) enhanced rates for overtime, night or weekend work, work of a particularly arduous nature, etc.;

[yes] (c) cost of living and accommodation allowances;

[yes] (d) wage benefits such as Christmas, end-of-year, holiday or productivity bonuses and allowances for higher grades;

[yes] (e) allowances for transport to and from work (1);

[yes] (f) compensation for days not actually worked, paid holidays;

[yes] (g) commissions, tips, attendance fees;

[yes] (h) other allowances or occasional payments linked to overall company results as part of profit-sharing schemes;

[yes] (i) payments made by employers contributing to asset formation by employees;

[yes] (j) one-off payments to employees when they leave the enterprise, in so far as the payments are not made under a

collective agreement;

[yes] (k) housing allowances payable in cash by employers to their employees.

3.018. Gross wages and salaries in kind comprise goods and services made available by employers to their employees free of charge or at reduced prices for use by the employees and their families, as and when they wish, to satisfy their needs. They do not necessarily figure in the production process. Their value is the value of the benefit which they represent: the value of the goods if they are provided free of charge, or the difference between the latter value and the payments to the employees if they are provided at reduced prices. These items, which are of considerable significance in the EAA, include the following components:

[yes] (a) agricultural products made available to employees free of charge or at reduced prices, by way of remuneration;

[yes] (b) accommodation services produced for own account and provided to employees free of charge or at reduced prices

[yes] (c) goods and services purchased by employers, provided that these purchases fulfil the definition of wages in kind (i.e. when they do not constitute intermediate consumption). In particular, the transport of employees between their place of work and home is part of their wages in kind, unless the journeys take place during the employer's time. This category includes purchased accommodation services and children's crèches, etc.

E2 OTHER TAXES ON PRODUCTION

E2.1.1 *Data sources*

Other taxes on production comprise the following:

- Land taxes, based on a specific valuation of the municipal and cantonal data on the land tax (rural), which is not levied in all regions of Switzerland.
- Taxes on motor vehicles, taken for classical agriculture from the FADN/FSS/EAA extrapolation (specific heading and TCS share of vehicle costs) and specific keys for nurseries (#P), flower-growing (#F) and specialist agriculture service enterprises (#Services).
- The tax on livestock holders was levied until 1995 (State account, FFA).

Under-compensation of VAT

Value added tax (VAT) was introduced in Switzerland in 1995, with different rates depending on the goods and services concerned. In particular, there is a low rate for essential goods (including primary

agricultural products, animal feed, fertilisers and plant protection products), a reduced rate for hotels and restaurants and a normal rate for all other taxable goods and services. In the EAA, operations on goods and services (production, intermediate consumption, gross fixed capital formation) are booked without VAT. Most agricultural holdings are not subject to VAT. The net method of VAT compensation is applied to the whole EAA universe:

VAT theoretically invoiced by agricultural unit on sales of goods and services (to other agricultural units and outside the branch), calculated by product at the appropriate rate of VAT

Less: VAT theoretically invoiced to agricultural units on goods and services purchased for intermediate consumption and on investment goods, calculated by product at the appropriate rate of VAT.

= Over- or under-compensation of VAT

Since the difference is always negative for the whole EAA universe, there is under-compensation for VAT, which is recorded under "Other taxes on production".

NOTE: Taxes on products (including deductible VAT) are not part of other taxes on production as they are directly deducted from the value of production, which is evaluated at basic prices (see chapters C and D), or included in the intermediate consumption, evaluated to purchase prices.

Stamp duty are included in the intermediate consumption expenses in insurance services. Those stamp duties represent 5% of all insurance premiums paid (property and civil liability insurance on buildings, livestock, equipment and vehicles). These premiums are derived directly from the FADN/FSS/EAA extrapolation and the keys #F, #P and #Services. For hail insurance, the gross premiums and the services share (booked under intermediate consumption) are provided by Suisse Grêle.

E2.1.2 Level of detail

- Under-compensation of VAT
- Other taxes on production n.i.e.

E2.1.3 Calculation procedure

See E2.1.1

E2.1.4 Adjustments

None.

E2.1.5 Estimations

None.

E2.1.6 Numerical example

Please see numerical example (excel sheet: E2_24000, E2_VAT, E2_VAT_a, E2_VAT_b, E2_VAT_c)

E2.1.7 List of items covered (see particularly Annex 1 of Regulation (EC) No 138/2004, paragraph 3.048)

In Switzerland, following items are relevant (a, b, g) [yes], or not (c, d), or included under intermediate consumption (e, f):

3.048. For agriculture, the most important other taxes on production are:

[yes] (a) property taxes and other taxes on the use of land and buildings used for production purposes (irrespective of whether the agricultural units own or hire them);

[yes] (b) taxes on the use in production of fixed capital goods such as motor vehicles, machines or other equipment (irrespective of whether the agricultural units own or hire them);

[not relevant] (c) wage-bill taxes paid by the employer;

[not relevant] (d) taxes on pollution resulting from production activities;

[not relevant as tax] (e) taxes on licences/permits to engage in commercial or professional activities, on condition that the licences/permits are granted automatically once the amounts due have been paid. If a regulatory function attaches to these payments (e.g. checks on the applicant's competence or qualifications), they should be treated as purchases of services from general government and be recorded as intermediate consumption (unless they are completely out of proportion to the cost of providing the services in question) (cf. 2.108(o));

[if any, comprised in intermediate consumption, item 19940] (f) water rates which are paid as flat-rate taxes and not proportional to the quantity of water consumed;

[yes] (g) under-compensation of VAT resulting from the application of the flat-rate VAT systems (cf. 3.041 and 3.042).

E2.1.8 Are there any 'taxes on production' in your country which are not explicitly mentioned in the Annex 1 of Regulation (EC) No 138/2004?

None.

E2.1.9 If so, details on the concrete scheme (who pays them, under which conditions)

Doesn't apply

E2.1.10 For which of the items given in your reply to question A did the application of the accruals principle under the new methodology confer changes?

None.

E2.1.11 Please specify, if applicable, how under-compensation of VAT has been calculated.

Please see E2.1.1

E2.1.12 Please give a numerical example

Please see numerical example (excel sheet)

E3 OTHER SUBSIDIES ON PRODUCTION

E3.1.1 Data sources

The State financial statements (yearly Report on federal financial statements) of the Federal Finance Administration (FFA) is the source for subsidies (D.3, ESA2010) and capital transfers (D.9, ESA2010) paid by the Confederation to agricultural holdings, while the functional accounts of the Cantons and municipalities aggregated annually by the FFA are the source for subsidies and capital transfers paid out directly by the Cantons and municipalities (from their own resources) to agricultural holdings. In Switzerland, the Confederation has the main responsibility for agriculture policy. It is assumed that the Cantons and municipalities, on the basis of their ad hoc legislation, do not pay any subsidies on products (D.31, ESA2010), and that their special support programmes are restricted solely to the payment of other subsidies on production (D.39, ESA2010) and capital transfers (D.9, ESA2010) (especially D.92 investment grants).

E3.1.2 Level of detail

No detail is published in the EAA. Details about direct payments to agriculture and other agricultural policy measures are available by the Federal Office for Agriculture (FOAG) and in the detailed State financial statements (FFA).

E3.1.3 Calculation procedure

The amounts paid during the calendar year are recorded, taking account of the actual refunds of amounts unduly paid to agricultural holdings. The time of recording is relevant as in particular the contributions are paid in the same year as the harvest.

NOTE:

- We would point out here that subsidies on products are included in the value of production at basic prices, and are mentioned by product in chapters C2*.
- Tax refunds on mineral oils (Federal Customs Administration) are implicitly recorded, as intermediate consumption of fuels at purchase prices already takes account of the deduction of this subsidy on products (on supplies).

E3.1.4 Adjustments

The total amount of other subsidies on production is adjusted with the refunds by farmers to the State of other subsidies on production which have been unduly paid out.

E3.1.5 Estimations

The interest theoretically paid on investment credits (loans with a null interest rate, that means that the State subsidizes the interest costs) are estimated on the base of the yearly volume of loans (investment credits and special farmers' help scheme) and average interest rate. Those calculated interest costs are offsetted in the interest paid (see chapter F2).

E3.1.6 Numerical example

Please see numerical example (excel sheet: E3_25000)

E3.1.7 List of items covered (see particularly Annex 1 of Regulation (EC) No 138/2004, paragraph 3.064)

List of other subsidies on production which apply to Swiss Agricultural Policy (Agricultural Policy 2014-2017), direct payments:

- Payments for cultivated landscape (keeping landscape open, slopes, vineyards in slopes, alpine pasture holdings)

- Payments for food supply security
- Payments for biodiversity
- Payments for the quality of landscape
- Payments to production systems (organic farming; extensive cultivation of cereals, oilseeds and pulses; milk and meat production based on rough forages / grazing; animal welfare)
- Payments for enhancement of resource efficiency (low emission manure spreading; low tillage and other soil preserving techniques; precision spraying of plant protection products)
- Transition supports
- Water protection measures (low impact activity in the vicinity of water catchment areas)

Other subsidies on production not mentioned above which apply in Switzerland:

- Interest subsidy on investment credit and aid to holdings (as per Eurostat requirements): interest paid by the State is booked under interest payable, valued at the average mortgage rate)

Following types of other subsidies apply in Switzerland (based on paragraph 3.064 of Regulation (EC) 138/2004):

3.064. In the case of agriculture, the most important types of other subsidy linked to production are:

- [doesn't apply] — wage and payroll subsidies,
- [yes] — grants for interest relief (cf. ESA 95, 4.37(c)) made to resident producer units, even when they are intended to encourage capital formation (2). In effect, these are current transfers designed to reduce producers' operating costs. They are treated in the accounts as subsidies to the producers benefiting from them, even when the difference in the interest is, in practice, paid directly by the government to the credit institution making the loan (by way of derogation from the payment criterion),
- [doesn't apply on national level] — over-compensation of VAT resulting from the application of the flat-rate systems (cf. 3.041 and 3.042),
- [doesn't apply] — the assumption of social security contributions and real-estate taxes,
- [doesn't apply] — the assumption of other costs such as private storage aid for wine and grape must and the re-storage of table wines (B1-1610) (in so far as the stocks are owned by an agricultural unit),
- various other subsidies on production:
- [doesn't apply] — grants for land set-aside (compulsory set-aside linked to acreage-based grants which were introduced as part of the

CAP reform, B1-1060, and five-year set-aside, B1-1062), [doesn't apply] — financial compensation for withdrawals of fresh market fruit and vegetables (B1-1501). These payments are often made to groups of market producers, and should be treated as subsidies to agriculture, since they are direct compensation for loss of production, [yes, applies in a similar way in Switzerland] — cattle premiums for seasonal adjustment ('deseasonalisation'), processing of male calves and extensification (B1-2123 to B1-2125), [yes] — grants for agricultural production in less-favoured and/or mountainous areas, [yes] — other grants intended to influence methods of production (extensification, techniques designed to reduce pollution, etc.), [only in some special years] — amounts paid to holders as compensation for recurrent losses of goods in inventories such as crop or livestock products which are considered to be work in progress and plantations in so far as they are still in their growth period (cf. 2.040 to 2.045). By contrast, compensatory transfers for losses of goods in inventories and/or plantations used as factors of production are recorded as other capital transfers in the capital account.

E3.1.8 Are there any 'other subsidies on production' in your country which are not explicitly mentioned in the Annex 1 of Regulation (EC) No 138/2004?

It can be assumed that all the other subsidies on production according to the Swiss Agricultural Policy scheme AP 2014-2017 are included, especially under the type "other grants intended to influence methods of production (extensification, techniques designed to reduce pollution, etc.)".

E3.1.9 If so, details on the concrete scheme (who receives them under which conditions)

Doesn't apply.

E3.1.10 For which of the items given in your reply to question A did the application of the accruals principle under the new methodology confer changes?

Doesn't apply.

E3.1.11 Please specify, if applicable, how over-compensation of VAT has been calculated.

Over-compensation of VAT only applies at a regional level in the Regional Accounts for Agriculture. On Swiss NUTS0 level, over-compensation of VAT doesn't happen (see chapter E2).

E3.1.12 Please give a numerical example

Doesn't apply

PART F - COMPONENTS OF THE ENTREPRENEURIAL INCOME ACCOUNT

F1 RENTS AND OTHER REAL ESTATE RENTAL CHARGES TO BE PAID

F1.1.1 Data sources

Rent payable is the return on non-produced tangible assets (agricultural land) made available by other units (outside the EAA universe).

Rent payable is calculated with following data sources:

1. FADN/FSS/EAA extrapolation (items "rent" and summer grazing costs", see chapter D1.1.1), and specific key "summer grazing costs" (part "rent alpine pastures"): FSO, SFU, SAV
2. FSO and SFU experts values to estimate the following deductions:
 - the "rental of rural buildings" part (booked as intermediate consumption) comprised in the FADN item "rent"
 - the "rental of dwellings" part, which is not recorded in the EAA (this comes under the heading "owner-consumer" of a agricultural household).

F1.1.2 Level of detail

No detail is published.

The item "Rents and other real estate rental charges to be paid" is compiled at a detailed level:

- costs of land rents of all year agricultural holdings
- costs of alpine pastures rents of summer alpine holdings (see special key "summer grazing costs", chapter D1.1.1)

F1.1.3 Calculation procedure

Rent payable is the return on non-produced tangible assets (agricultural land) made available by other units (outside the EAA universe). It is evaluated so as to eliminate the part for renting buildings (which comes under intermediate consumption) and as far as possible to retain rent from agricultural land only.

Rent payable is calculated in two stages:

1. FADN/FSS/EAA extrapolation (items "rent", "summer grazing costs") and specific key "Summer grazing costs" (part "rent alpine pastures", see chapter D1.1.1)
2. Adjustment of the extrapolation, based on an estimate of the share of farm holdings and the intrinsic value, subject to the

following deductions:
- the "rental of rural buildings" part is booked as intermediate consumption; part of these costs covers depreciation of rural buildings, and should be deducted from fixed capital consumption in rural buildings, so as to avoid double counting.
- the "rental of dwellings" part, which is not recorded in the EAA (this comes under the heading "owner-consumer" of a agricultural household).

F1.1.4 Adjustments

None.

F1.1.5 Estimations

Average proportions of "summer grazing costs" based on information provided by the Swiss alpine economy society (SAV – Schweizerischer Alpwirtschaftlicher Verband).

F1.1.6 Numerical example

Please see numerical example (excel sheet: F1_28000)

F1.1.7 Are there any taxes related to this item which have to be recorded in the EAA?

Yes, land taxes are levied in some Swiss Cantons, and are recorded in the item "Other taxes on production" (see chapter E2).

F1.1.8 If so, are they recorded explicitly in the generation of income account or implicitly in the entrepreneurial income account (in which latter case the rental payments recorded include taxes related to them)?

Land taxes are recorded explicitly in the generation of income account (other taxes on production), and are not part of the item "rents and other real estate rental charges to be paid.

F2 INTEREST PAID

F2.1.1 Data sources

- Estimate of liabilities on the basis of long investment series, depending on the details available from the investment credit administration (IC), based on a valuation of individual IC dossiers (FOAG).
- FADN data (Federal Office for Agriculture, Agroscope): "conventional" agricultural holdings (investment loans, mortgage

loans, current account and others) according to the average FADN holding structure, and weighted evaluation of interest in line with interest rates differentiated by type of liability (base rate: average annual mortgage lending rate of cantonal banks, published by the Swiss National Bank – SNB).

- JardinSuisse, horticulture keys (see chapter D1.1.1) and agricultural services keys
- National Accounts (FSO): FISIM (financial intermediary services indirectly measured)

F2.1.2 Level of detail

No details are published.

The item "Interest paid" is compiled at a detailed level, especially for the domain of "classical" agriculture, according to the structure of liabilities (based on FADN structure); for each compound a different interest rate can be applied. The liabilities take also into account private (family internal) debts:

- short term liabilities
- mid term and long term liabilities:
 - mortgages
 - investment credits
 - other mid term and long term debts

F2.1.3 Calculation procedure

Interest on debt covers return on capital borrowed by EAA units either from financial intermediaries (as mortgage loans, commercial loans, building loans or current accounts) or by private individuals (often family members, in the form of delayed repayments of shares in legacies to descendants, for example) to finance productive assets or current operations (cash flow).

Interest on debt also includes interest charged on capital (refundable, including investment credits and operating aid) offered at preferential rates (often zero) by public administrations (Confederation and Cantons). This subsidised interest is also recorded under other production subsidies (see chapter E3).

Interest on debt is restricted to the liabilities of the "holding" section of agricultural households. The EAA do not therefore include in particular: consumer loans for agricultural households and mortgage loans on household housing buildings.

The methodology for evaluating interest payable can be summarised as follows:

1. Estimate of liabilities on the basis of long investment series, depending on the details available from the investment credit administration (IC), based on a valuation of individual IC dossiers (FOAG). In particular, ongoing investment and bank loans at the end of the calendar year, and new loans and their repayment are modelled.
2. Structuring of absolute liabilities of the universe of "conventional" agricultural holdings (investment loans, mortgage loans, current account and others) according to the average FADN holding structure (ART), and weighted evaluation of interest in line with interest rates differentiated by type of liability (base rate: average annual mortgage lending rate of cantonal banks, published by the Swiss National Bank – SNB).
3. Evaluation of interest payable for other EAA fields with keys for nurseries, flower-growing and specialist agriculture services.
4. FISIM adjustment: deduction of the FISIM share corresponding to the EAA amount of interest payable in relation to total interest payable and receivable for the primary sector (total FISIM for the primary sector being taken from the national accounts).

F2.1.4 Adjustments

FISIM adjustment (please see D2.10).

F2.1.5 Estimations

The distribution of the different interest rates between the different types of liabilities is balanced out with an estimate for the type "other mid term and long term debts".

F2.1.6 Numerical example

Please see numerical example (excel sheet: F2_29000)

F2.1.7 Are there any subsidies related to this item which have to be recorded in the EAA?

Yes, the investment credits and farmers' help scheme are loans where the interest costs are taken over by the State. This amount is added to the directly paid interests, and offsetted in the other subsidies on production (see chapter E3).

F2.1.8 If so, are they recorded explicitly in the generation of income account or implicitly in the entrepreneurial income account (in which latter case the interest payments recorded exclude subsidies related to them)?

Explicit gross record (see chapter E3): subsidised interests on investments credits and farmers' help scheme as resource in generation of income (as other subsidies on production), calculated interest paid as use in entrepreneurial income (as interest paid).

F3 INTEREST RECEIVED

F3.1.1 *Data sources*

Interest receivable is restricted to the return on the agricultural holding's financial assets included in the working capital (liquid assets in the current account needed to pay for current operations). The evaluation is based on following data sources:

1. Average structure of FADN holdings (FOAG, Agroscope)
2. FISIM, National Accounts (FSO).

F3.1.2 *Level of detail*

None.

F3.1.3 *Calculation procedure*

Interest receivable is restricted to the return on the agricultural holding's financial assets included in the working capital (liquid assets in the current account needed to pay for current operations). The evaluation is carried out in two stages:

1. Debt interest (before FISIM adjustment) multiplied by the proportion of interest receivable in relation to interest payable (based on the average structure of FADN holdings – FOAG, Agroscope).
2. FISIM adjustment: addition of the FISIM share corresponding to the EAA amount of interest receivable in relation to total interest payable and receivable for the primary sector. The total FISIM for the primary sector is taken from the National Accounts (FSO).

F3.1.4 *Adjustments*

FISIM adjustment (please see D2.10).

F3.1.5 *Estimations*

None.

F3.1.6 *Numerical example*

Please see numerical example (excel sheet: F3_30000)

PART G - ELEMENTS OF THE CAPITAL ACCOUNT

G1 GROSS FIXED CAPITAL FORMATION (GFCF)

G1.1 GFCF IN AGRICULTURAL PRODUCTS

G1.1.1 *Data sources*

GFCF in plantations: please see chapter C2.10 Plantations:

Quantities:

- Hops: annual areas (FSO).
- Perennial renewable raw materials: annual areas (FSO).
- Tree-growing: annual areas (FSO and FOAG, for dessert apples and pears, peaches, cherries, apricots) and number of trees (FSO, for other fruit).
- Berries and small fruit: annual areas (FSO).
- Vineyard: annual areas (FSO). Planting spread over three years.

Prices:

- Hops, perennial renewable raw materials, tree-growing, berries and small fruit: list of gross margins (Agridea).
- Vineyard: price of assets planted by wine training system (Agridea). The weighting of the training systems (degree of mechanisation of the wine-growing work, from the very labour-intensive gobelet pruning to highly mechanised methods for straddle type tractors) is based on the wine-growing census (FSO, 1991), changes being based on expert opinions (Agridea, case studies).

GFCF in animals: please see chapters C2.16 (cattle), C2.17 (pigs) and C2.20 (bees):

- livestock numbers: annual farm structure surveys (FSO), and database for livestock transactions (Federal Office for Agriculture FOAG)
- livestock imports and exports: international trade statistics (Federal Customs Administration FCA)
- livestock prices and price indices: Swiss Farmers' Union (SFU), FSO

G1.1.2 *Level of detail*

The published detail is according to Eurostat's dataset:

- GFCF in plantations
- GFCF in animals

G1.1.3 Calculation procedure

GFCF in plantations:

GFCF in plantations is equal to own-account production of fixed capital goods of type plantation (offsetting entry, see chapter C2.10). This equivalence is possible since disposals (e.g. firewood from plantations) are assumed to be negligible (at least from a market point of view). The assets and consumption of fixed capital are derived using the perpetual inventory method (PIM, see chapter G1.2; linear depreciation is assumed for plantations).

GFCF in animals: please see also chapters C2.16, C2.17 and C2.20:

Gross fixed capital formation (GFCF) in "fixed asset" livestock (cows, sows) is obtained by deducting from purchases (see chapters C2.16, C2.17, offsetting entry for own-account production of fixed capital goods in "fixed asset" livestock) sales of "fixed asset" livestock (slaughter for culling). By convention, fixed capital consumption (FCC) of "fixed asset" livestock is zero (see paragraph 3.140 of ESA2010), and the assets at the end of year (t) are obtained by multiplying the livestock numbers in the Farm structure survey census (FSO) for April/May (t+1) by the average price per category for year (t).

Box 3: Own account production of cultivated assets, "fixed asset" livestock

The value of own-account production of fixed capital assets of the type "cultivated assets, fixed asset livestock", or the natural growth of the herd of production livestock, is calculated using the following indirect method:

Natural growth = Gross fixed capital formation
- Imports (= zero, as imports are booked under inventory of work in progress)

+ Exports* or other end-use
+ Slaughter (including domestic slaughter)

*Tariff headings for foreign trade:

Breeding cattle: 0102.1010 to 0102.1099

Breeding pigs: 0103.1010 to 0103.9120

For practical reasons, gross fixed capital formation is also evaluated using an indirect method:

Gross fixed capital formation (GFCF) = Reform discount

+ Other losses on production livestock

+ (final stock - initial stock)

+ Costs of change in ownership (transport)

The reform discount is equivalent to the difference between the asset value of the "fixed asset" livestock at the slaughter value of the slaughter animals. This reform discount is calculated only for breeding cattle (cows, stock bulls) and pigs (sows and boars). The following factors (ratio of capital price to slaughter price) have been defined for Switzerland: 1.20 for cattle and 1.60 for pigs. Other losses of "fixed asset" livestock are not recorded specially, and changes in herdage are evaluated in a similar way to changes in inventory

G1.1.4 Adjustments

Basis livestock number statistics may be adjusted for some years if necessary, especially when threshold or reference date changes.

G1.1.5 Estimations

The replacement factor for bee colonies (30% per year) as the reform discount factors for cattle and pigs are pluriannual average rates.

G1.1.6 Numerical example

Please see numerical example (excel sheet: C2.10_04230 for plantations and C2.16_17_20_Animals_GFCF for animals)

G1.2 GFCF IN NON-AGRICULTURAL PRODUCTS

G1.2.1 Data sources

GFCF in equipment and machinery:

- Machinery: Sales of machinery based on imports (DGC) and the statistics of the Swiss Association of manufacturers and traders of agricultural machinery (ASMA), adjusted by an average margin factor.
- Wine-making and packaging equipment: volume processed (grapes/must/wine) times the average annual replacement price of equipment per hectolitre processed (Agridea, formerly SRVA).

Computer equipment: number of PCs (new and replacement), unit price taken from the press.

Transport equipment: number of agricultural vehicles based on the entry into service of new vehicles (ASMA), weighted prices taken from the annual report on machinery costs (FOAG/Agroscope). The number of other vehicles (cars, jeeps, etc.) is estimated.

GFCF in construction:

- Non-residential buildings: rural buildings (main structure only,

fixed equipment being recorded with machinery) based on the building statistics (FSO). The proportions of building types (each has a specific life expectancy / mortality function) are compiled based on the farm structure surveys and livestock numbers.

- Other civil engineering structures: included under rural buildings, hence in non-residential buildings.
- Major improvements to land: building statistics (FSO), deducting improvements to woodland.
- Costs of property transfer: estimated number of changes of ownership (FSO, SFU) multiplied by the average cost per transfer (valued by experts, SFU).

GFCF in intangible assets:

- Software: number of PCs (new and replacement), unit price of software/PC taken from the Agridea price list.

G1.2.2 Level of detail

The published detail is according to Eurostat's dataset (definitive data)

NOTE: this dataset should be revised according to ESA2010 (major improvements to land and costs of property transfer are now part of GFCF in constructions).

G1.2.3 Calculation procedure

Principles:

With the exception of production livestock and inventory, the productive assets of the primary sector (non-financial assets) are evaluated using the perpetual inventory method (PIM), which obviates the need for the alternative which would be to catalogue the assets (a precise inventory of the machinery and property, with their age structure) of the enterprises in the primary sector. The PIM relies on methodological work and standards, notably those of the OECD . For the economic accounts of the primary sector in general, and EAA in particular, the PIM allows the evaluation of the gross fixed capital formation to be reconciled with those of the closing assets (gross capital stock at the year end) and consumption of fixed capital (CFC).

The principle of the PIM is to accumulate investments over a period at least as long as the maximum useful life of the assets concerned (exception: assets of a new type such as software, which did not exist before a certain date covered by the time series of EAA), and to gradually remove the part of the capital (using a survival function) which is discarded. This gives us the gross capital stock (to be booked under closing assets in the balance sheet). Similarly,

the accumulation of the differences between investments and fixed capital consumption gives us the net capital stock. The gross and net capital stock, the capital thus discarded and the fixed capital consumption are evaluated at replacement costs (constant, current).

Estimating time series:

The longer the maximum useful life of an asset, the harder it is to develop a time series, especially for the period 1851-1951 (constructions). As the EAA series begins in 1985, it was necessary to devise a series of investments in rural buildings starting no later than 1885, associated with a parallel series of price indexes. These long series have been estimated on the basis of three complementary pillars:

- a) The work carried out by the FSO to prepare the assets account , and especially the historical series of investments in building and the associated price index.
- b) The agricultural and forestry statistics of the FSO and the SBV, part of which go back to the late 19th century.
- c) An estimate (valued by experts) of the progression of capital intensity by volume of work since 1851 helps to make up for incomplete statistics, to interpolate between two censuses or to adapt the general macro-economic trends established by the national accounts to the real situation of the primary sector.

Parameters used:

For each asset, the PIM requires the following information:

1. A long series of investments at current prices. If disposals are nil or negligible, then investments correspond to gross fixed capital formation (GFCF).
2. A price index (referred to a base or reference year, i.e. 2000).
3. A normal logarithmic (log-normal) survival function and a double geometric depreciation function , to which the standards of the National Accounts have been applied .

G1.2.4 Adjustments

Some price indices on investment goods (based on consumption price indices) have to be corrected for VAT rate changes.

G1.2.5 Estimations

Number of new cars for agriculture is estimated based on average replacement period and number of holdings.

G1.2.6 Numerical example

Please see numerical example (excel sheet: G1.2_33120)

G2 CONSUMPTION OF FIXED CAPITAL (CFC)

G2.1.1 *Data sources*

Please see also chapter G1. Consumption of fixed capital (CFC) is compiled with the PIM for each category of fixed assets (except animals). Specific additions are done for buildings and equipments (the net premiums of insurances are added for buildings and transport equipement).

CFC in plantations: please see chapter C2.10 Plantations:

Quantities:

- Hops: annual areas (FSO).
- Perennial renewable raw materials: annual areas (FSO).
- Tree-growing: annual areas (FSO and FOAG, for dessert apples and pears, peaches, cherries, apricots) and number of trees (FSO, for other fruit).
- Berries and small fruit: annual areas (FSO).
- Vineyard: annual areas (FSO). Planting spread over three years.

Prices:

- Hops, perennial renewable raw materials, tree-growing, berries and small fruit: list of gross margins (Agridea).
- Vineyard: price of assets planted by wine training system (Agridea). The weighting of the training systems (degree of mechanisation of the wine-growing work, from the very labour-intensive gobelet pruning to highly mechanised methods for straddle type tractors) is based on the wine-growing census (FSO, 1991), changes being based on expert opinions (Agridea, case studies).

CFC in equipment and machinery:

- Machinery: Sales of machinery based on imports (DGC) and the statistics of the Swiss Association of manufacturers and traders of agricultural machinery (ASMA), adjusted by an average margin factor.
- Wine-making and packaging equipment: volume processed (grapes/must/wine) times the average annual replacement price of equipment per hectolitre processed (Agridea, formerly SRVA).
- Computer equipment: number of PCs (new and replacement), unit price taken from the press.
- Transport equipment: number of agricultural vehicles based on the entry into service of new vehicles (ASMA), weighted prices taken

from the annual report on machinery costs (FOAG/Agroscope). The number of other vehicles (cars, jeeps, etc.) is estimated.

GFCF in construction:

- Non-residential buildings: rural buildings (main structure only, fixed equipment being recorded with machinery) based on the building statistics (FSO). The proportions of building types (each has a specific life expectancy / mortality function) are compiled based on the farm structure surveys and livestock numbers.
- Other civil engineering structures: included under rural buildings, hence in non-residential buildings.
- Major improvements to land: building statistics (FSO), deducting improvements to woodland.
- Costs of property transfer: estimated number of changes of ownership (FSO, SFU) multiplied by the average cost per transfer (valued by experts, SFU): CFC is unique and in full on the first year.

GFCF in intangible assets:

- Software: number of PCs (new and replacement), unit price of software/PC taken from the Agridea price list.

G2.1.2 Level of detail

The level of detail published for the Swiss EAA is identical to the detail of Eurostat's dataset (definitive data).

The level of detail for compilation is equal to the level used for compiling the GFCF and the fixed assets of the balance sheet (which is not included in Eurostat's dataset for EAA). This detailed CFC is published by FSO in the branch accounts of the primary sector (which are the bridge to National Accounts) and can be provided on demand with the EAA coverage.

According to ESA2010, the CFC for animals is null (ESA2010, paragraph 3.140 Consumption of fixed capital shall be calculated for all fixed assets (except animals), including intellectual property rights, major improvements to land and costs of ownership transfers associated with non-produced assets).

G2.1.3 Calculation procedure

For each category of fixed assets (part of the PIM approach):

- 1) investments to current prices are deflated to constant prices:
Investments (volume, to constant prices of reference year) $t =$

Investments (value, to current prices)t
/ Price index (t/reference year)

2) investments (volume) of year (t) are distributed in a depreciation matrix and/or multiplied by the depreciation function

3) for a given year, sum of all the depreciation parts of investments over the years, to constant replacement prices

4) the sum of depreciations to constant prices is the CFC for a given year to constant replacement prices

5) CFC (volume) is finally inflated with the price index of the given category of fixed asset for a given year, to obtain its CFC to current replacement prices.

G2.1.4 Adjustments

Specific adjustments have to be done on some price indices, in order to erase the effects of VAT-rates changes, as the items are to be valued without deductible VAT.

G2.1.5 Estimations

The parameters of the dual geometric functions are based on expert values, with recommendations of OECD handbook and Swiss National Accounts. The useful life of assets or duration (depreciation time) is based on expert values. The retropolation of investments in land improvements and rural buildings in the second part of XIX century are partly based on assumptions: investments/GDP ratios of National Accounts, and investment grants / investments ratios for land improvement programmes, the first federal support measures for agriculture in the XIX century.

G2.1.6 Numerical example

Please see numerical example (excel sheet: G2_21100)

G2.1.7 Goods covered by the item 'others' (code 21900)

The item 21900 Other CFC covers the consumption of fixed capital of software and costs of property transfer (offsetting of investments, as CFC is performed in full the same year).

G2.1.8 Please specify how consumption of fixed capital has been calculated

Please see chapter G2.1.3. Here are mentioned the specific parameters for each category of assets:

PIM Parameters:

a) survival function (mortality function) = LOG (log-normal)

b) depreciation function: DG (dual geometric), L (linear)

c) price index:

SFU agricultural input, factor and assets price indices,

FSO consumer price index (CPI),

Agridea, wine making factor price indices

LUS: Luzerner Scheunenindex = specific rural construction index of Swiss Canton Lucerne

21100 EQUIPEMENT

- Transport equipment: a) LOG b) DG c) SFU machinery
- Computer equipment: a) LOG b) DG c) FSO, CPI hardware
- Fixed installations, machinery: a) LOG b) DG c) SFU machinery
- Wine conditioning/packaging: a) LOG b) DG c) Agridea pressing
- Winery (cellaring): a) LOG b) DG c) Agridea cellaring, packaging

21200 BUILDINGS

- Rural constructions (non residential): a) LOG b) DG c) LUS
 - envelope, heavy long duty: a) LOG b) DG c) LUS
 - envelope, light construction: a) LOG b) DG c) LUS
 - interior layout: a) LOG b) DG c) LUS
- Major land improvements: : a) LOG b) DG c) LUS

21300 PLANTATIONS

- Fruit orchards: a) LOG b) L c) SFU plantations
- Berries (perennial): a) LOG b) L c) SFU plantations
- Hops: a) LOG b) L c) SFU plantations
- Renewable raw materials (perennial): a) LOG b) L c) SFU plantations
- Vines: a) LOG b) L c) Agridea vines

21900 OTHERS

- Software: a) LOG b) DG c) FSO, CPI software

G2.1.9

Average economic life of the various fixed assets for which CFC is calculated

Please see chapter G2.1.3. Here are the average economic life of the various fixed assets (in () is the maximal life expectancy):

21100 EQUIPEMENT

- Transport equipment: 15 (30)
- Computers equipment (without software): 5 (10)
- Fixed installations, machinery: 10 (20)
- Wine conditioning/packaging: 8 (16)
- Winery (cellaring): 15 (30)

21200 BUILDINGS

- Rural constructions (non residential)
 - envelope, heavy duty: 50 (100)
 - envelope, light construction: 25 (50)
 - interior layout: 15 (30)
- Major land improvements: 30 (60)

21300 PLANTATIONS

- Fruit orchards: 15 (30)
- Berries (perennial): 8 (16)
- Hops: 20 (40)
- Renewable raw materials (perennial): 12 (24)
- Vines: 25 (50)

21900 OTHERS

- Software: 5 (10)

G2.1.10 Mortality function used

Mortality function: Log-normal
 Depreciation function: dual geometric (linear for plantations)

G3 CHANGES IN STOCKS

G3.1.1 Data sources

The EEA contain the following stocks (inventories, balance sheet end of year) and changes in stocks, calculated in the same compiling stage than the evaluation of output value (see chapters C2*):

- Raw materials and supplies: hay and other preserved grass, straw and feed maize.
- Work in progress on cultivated assets: stock animals (for fattening), value of standing crops (Christmas trees), wines.
- Finished products: dessert apples and pears, grain maize, barley, oats, triticale and other feed cereals.

G3.1.2 Level of detail

The level of detail published for the Swiss EAA is identical to the detail of Eurostat's dataset (definitive data): unique item 36000

Changes in stocks.

The level of detail for compilation is (not published) is equal to the elementary level of compilation of the output value (see chapters C2* and G3.1.1).

The detailed changes in stocks according to ESA2010 (raw materials and supplies, work in progress and finished products) are published by FSO in the branch accounts of the primary sector (which are the bridge to National Accounts) and can be provided on demand with the EAA coverage.

G3.1.3 Calculation procedure

Normal calculation procedure is following (to current prices):

Changes in stocks =

[quantity (final, 31.12.(t)) – quantity (initial, 01.01.(t))]

x average price (t)

G3.1.4 Adjustments

For each elementary item, following equality is checked (adjustments are done if necessary):

quantity (final, 31.12.(t-1)) = quantity (initial, 01.01.(t))

G3.1.5 Estimations

For quality wine, it is assumed that the production of year(t) is entirely stocked at the end of year (t). 50% of this wine is sold bottled in year (t+1) and the remaining 50% in year (t+2).

G3.1.6 Numerical example

Please see numerical example (excel sheet i.e. C2.7_03900)

G4 CAPITAL TRANSFERS (INVESTMENT GRANTS, OTHER CAPITAL TRANSFERS)

G4.1.1 Data sources

The State financial statements (yearly Report on federal financial statements) of the Federal Finance Administration (FFA) is the source for compilation of capital transfers (D.9, ESA2010) paid by the Confederation to agricultural holdings, while the functional accounts of the Cantons and municipalities aggregated annually by the FFA are the source for compilation of capital transfers paid out directly by the Cantons and municipalities (from their own

resources) to agricultural holdings.
In Switzerland, the Confederation has the main responsibility for agriculture policy. It is assumed that the Cantons and municipalities, on the basis of their ad hoc legislation, do not pay any subsidies on products (D.31, ESA2010), and that their special support programmes are restricted solely to the payment of other subsidies on production (D.39, ESA2010) and capital transfers (D.9, ESA2010) (especially D.92 investment grants).

G4.1.2 Level of detail

According to Eurostat's dataset (definitive data):
- 37100 Investment grants
- 37200 Other capital transfers

G4.1.3 Calculation procedure

The amounts paid during the calendar year are recorded, taking account of the actual refunds of amounts unduly paid to agricultural holdings.

G4.1.4 Adjustments

The total amount of capital transfers is adjusted with the refunds by farmers to the State of capital transfers which have been unduly paid out.

G4.1.5 Estimations

None.

G4.1.6 Numerical example

Please see numerical example (excel sheet G4_37000)

G4.1.7 List of items covered (see Annex 1 of Regulation (EC) No 138/2004, 3.091 and 3.096))

Basically, the Swiss capital transfers from State to agricultural holdings contain following measures in the EAA, and are all of the type 37100 Investments grants (D.92, ESA2010):
- Improvement of agricultural land and rural buildings (the share of improvements to woodland is deducted)
- Encouragement of wine-growing: reconstitution of vineyards (until 1992)

Until 1999, some 37200 Other capital transfers (D.99, ESA2010) have been recorded. They were paid out as:

- a compensation of losses of livestock assets as consequence of the BSE epizooty.
- a compensation of early scrapping of silage stocking capacities (reorganisation of milk production as raw input for cheese industry)

In Switzerland (whose Agricultural Policy is specific), following items are identified as close or equal to actual (2015) Swiss capital transfers, and are recorded in the item 37000 Capital transfers (as 37100 investment grants or 37200 Other capital transfers):

The most important types of other grant made by the EAGGF Guidance Section and investment grants for agriculture are:
 [doesn't apply anymore], — grants for restructuring orchards or vineyards, in so far as they are the subject of a replanting obligation,
 [doesn't apply] — reimbursement, for account of general government, of loans contracted by production units to finance their investment,
 [doesn't apply] — start-up grants to young farmers to help them finance the acquisition of assets.

In the case of agriculture, other capital transfers also include:
 [doesn't apply anymore] — grants for the permanent abandonment of orchards or vineyards,
 [doesn't apply] — grants for the cessation or reduction of milk production (in so far as they affect, explicitly or implicitly, the value of quotas),
 [doesn't apply anymore] — compensation for exceptional and catastrophic losses of fixed capital goods used in the production of agricultural goods (e.g. animals and equipment),
 [doesn't apply] — start-up grants to young farmers for purposes other than financing the acquisition of assets,
 [doesn't apply] — grants to compensate for reductions in the value of assets or to reduce debts.

G4.1.8 Are there any 'capital transfers' in your country which are not explicitly mentioned in the Annex 1 of Regulation (EC) No 138/2004?

Yes.

G4.1.9 If so, details on the concrete scheme (who receives them under which conditions)

The Swiss capital transfers from State to agricultural holdings contain following measures in the EAA, and are all of the type 37100 Investments grants (D.92, ESA2010):

- Improvement of agricultural land and rural buildings (the share of improvements to woodland is deducted)

Methods for valuing agricultural production

	Code	DATA USED								ADJUSTMENT	EAA RESULTS			COMMENT
		Quantity		Price		Value at current price		Volume index	Price index		Value for year t-1 at current price	Value for year t at preceding year price	Value for year t at current price	
		Q		P		V		Iv	Ip					
		t-1	t	t-1	t	t-1	t	t/t-1	t/t-1					
CEREALS	01000												Aggregate item	
Wheat and spelt	01100												Aggregate item	
Soft wheat and spelt	01110	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Durum wheat	01120												Not significant for Switzerland	
Rye and meslin	01200	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Barley	01300	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Oats and summer cereal mixtures	01400	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Grain maize	01500	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Rice	01600												Not significant for Switzerland	
Other cereals	01900	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Industrial crops	02000												Aggregate item	
Oil seeds and oleaginous fruits (including seeds)	02100												Aggregate item	
Rape and turnip rape seed	02110	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Sunflower	02120	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Soya	02130	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Other oleaginous products	02190	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Protein crops (including seeds)	02200	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Raw tobacco	02300	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Sugar beet	02400	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Other industrial crops	02900													
Fibre plants	02910												Not significant for Switzerland	
Hops	02920	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Other industrial crops: others	02930	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
FORAGE PLANTS	03000												Aggregate item	
Fodder maize	03100	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Fodder root crops (including forage beet)	03200	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Other forage plants	03900	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
VEGETABLES AND HORTICULTURAL PRODUCTS	04000												Aggregate item	
Fresh vegetables	04100	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	Item calculated as sum of over 100 vegetable species, including mushrooms	
Cauliflower	04110	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Tomatoes	04120	x	x	x	x					Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)		
Other fresh vegetables	04190												Item calculated as difference: 04100 - (04110+04120)	

	Code	DATA USED								ADJUSTMENT	EAA RESULTS			COMMENT
		Quantity		Price		Value at current price		Volume index	Price index		Value for year t-1 at current price	Value for year t at preceding year price	Value for year t at current price	
		Q		P		V		Iv	Ip					
		t-1	t	t-1	t	t-1	t	t/t-1	t/t-1					
Plants and flowers	04200												Aggregate item	
Nursery plants	04210					x	x			x	V(t-1)	V(t)/Ip	V(t)	Value is obtained by multiplication of standard areas x average output per standard area
Ornamental plants and flowers (including Christmas trees)	04220													Aggregate item
Living ornamental plants and flowers	04220a					x	x			x	V(t-1)	V(t)/Ip	V(t)	
Cut flowers	04220b	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
Christmas trees	04220c					x	x			x	V(t-1)	V(t)/Ip	V(t)	Value is obtained by multiplication of standard areas x average output per standard area
Plantations	04230	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	Sum of channel 13 (own-account production of fixed capital goods) of items hops (02920), perennial renewable raw materials (included in 02930), fruits orchards and perennial berries (06100) and vines (06400)
POTATOES	05000	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
FRUITS	06000													Aggregate item
Fresh fruit	06100													Aggregate item
Dessert apples	06110	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
Dessert pears	06120	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
Peaches	06130	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
Other fresh fruit	06190	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
Citrus fruits	06200													Aggregate item
Sweet oranges	06210													Not significant for Switzerland
Mandarins	06220													Not significant for Switzerland
Lemons	06230													Not significant for Switzerland
Other citrus fruits	06290													Not significant for Switzerland
Tropical fruit	06300													Not significant for Switzerland
Grapes	06400													Aggregate item
Dessert grapes	06410	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
Other grapes	06490	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
Olives	06500													Aggregate item
Table olives	06510													Not significant for Switzerland
Other olives	06590													Not significant for Switzerland
WINE	07000													Aggregate item
Table wine	07100	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
Quality wine	07200	x	x	x	x						Q(t-1)*P(t-1)	Q(t)*P(t-1)	Q(t)*P(t)	
OLIVE OIL	08000													Not significant for Switzerland
OTHER CROP PRODUCTS	09000													Aggregate item
Vegetable materials used primarily for plaiting	09100													Not significant for Switzerland

	Code	DATA USED								ADJUSTMENT	EAA RESULTS			COMMENT
		Quantity		Price		Value at current price		Volume index	Price index		Value for year t-1 at current price	Value for year t at preceding year price	Value for year t at current price	
		Q		P		V		Iv	Ip					
		t-1	t	t-1	t	t-1	t	t/t-1	t/t-1					
Seeds	09200												Aggregate item	
Forage plants seeds	09200a	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Vegetable, fruit and horticulture seeds	09200b					x	x				x		$V(t-1)$ $V(t)/Ip$ $V(t)$	Value is obtained by multiplication of standard areas x average output per standard area
Other crop products: others	09900													Not significant for Switzerland
ANIMALS	11000													Aggregate item
Cattle	11100													Aggregate item
Heavy breeding cattle livestock	11100a	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Other heavy cattle livestock	11100b	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Calves	11100c	x	x	x	x						x		$Q(t-1)*P(t-1)$ $V(t)/Ip$ $Q(t)*P(t)$	
Pigs	11200	x	x	x	x		x				x		$Q(t-1)*P(t-1)$ $V(t)/Ip$ $Q(t)*P(t)$	$Q(t-1)$ and $P(t-1)$ is used for calculation of output components to current prices and prices of previous year (stocks, GFCF breeding animals (output part) and negative sales (intra-branch transaction of live animals: transportation and commercial margins))
Equines	11300	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Sheep and goats	11400	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Poultry	11500	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Other animals	11900	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
ANIMAL PRODUCTS	12000													Aggregate item
Milk	12100	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Eggs	12200	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Other animal products	12900													Aggregate item
Raw wool	12910	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	
Silkworm cocoons	12920													Not significant for Switzerland
Other animal products: others	12930	x	x	x	x								$Q(t-1)*P(t-1)$ $Q(t)*P(t-1)$ $Q(t)*P(t)$	