

Metodbeskrivning
Inventory

EAA

**Ekonomisk kalkyl för
jordbrukssektorn**

Economic Accounts for Agriculture

Inledning

Detta dokument innehåller en metodbeskrivning av den svenska EAA-kalkylen. Dokumentet är skrivet på engelska och är identiskt med det dokument som redovisas till EU:s statistikorgan Eurostat. Dokumentet följer en av Eurostat upplagd struktur som samtliga medlemsländer använder.

Inventory for Sweden of the new EAA methodology.

1. GENERAL FRAMEWORK

1.1 Institutional framework

1. Institutional settings, interdependency EAA with NA and RAA.

(1) Institution responsible for the compilation of the Economic Accounts for Agriculture (EAA) and of the unit values of agricultural products is *Statens Jordbruksverk (Swedish Board of Agriculture)*.

(2) Institution responsible for the compilation of the Agricultural Income Index is *Statens Jordbruksverk (Swedish Board of Agriculture)*.

(3) The bridge table is not yet (October 2001) used for the compilation of NA.

(4) Regional Accounts for Agriculture (RAA) have not yet been compiled according to EAA97. Responsible for RAA is *Statens Jordbruksverk (Swedish Board of Agriculture)*.

2. Revisions to the EAA.

For EAA: revision in September of year n for the years n-1, n-2 and sometimes also for earlier years.

For AII: Revision in December of year n for the year n-1.

3. Consistency with national EAA.

(1) From 1999 there is no difference between national EAA and the EAA transmitted to Eurostat.

(2) There is only an internal manual for the staff in Swedish Board of Agriculture working with EAA.

4. National programme for publication and dissemination of EAA data.

The intention is to publish a report on the website www.sjv.se each year in Sep/Oct after the delivery to Eurostat of the compilations. The AII figures will be published with some comments on the same website after the transmissions to Eurostat.

1.2 Compilation of the EAA: general remarks

1. Data sources

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2. Retropolation

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3. Data reliability

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2 COMPONENTS OF THE PRODUCTION ACCOUNT: OUTPUT

2.1 General

1. Intra-unit/branch consumption

Products concerned are:

- Cereals
- Protein crops
- Forage plants
- Potatoes

2. Exclusion of kitchen gardens and private livestock rearing

The basic statistics does not include kitchen gardens or private livestock rearing.

2.2 Cereals (including rice)

1. Calculation procedure

The principle Value = Quantity * Average Price for each use is applied, which for each kind of cereals gives the following procedure:

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

2. Data sources

- Official statistics on production (harvest).
- Official price statistics.
- Information from some of the larger enterprises buying cereals from the agricultural sector.
- Supply balance sheets for cereals.
- Information from the organization for certifying seeds.

3. Level of detail

Quantity is multiplied by the price for each one of the uses

- human consumption,
- fodder,
- seeds,
- others.

4. Adjustments

The prices in the price statistics for produce with water content 14% and intervention quality are adjusted to actual water content, other actual quality specifications and also for the higher prices for cereals used for seeds.

5. Estimations

Losses in the sector are estimated to 3% of the harvest according to information from the organisation of cereal producers.

6. Numerical example

Wheat 1998 (Production and losses are expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio SEK):

Production	2.249
Losses	68
Seeds	21
Usable production	<u>2.160</u>

	Human cons.	Feed sold	Feed used	Seeds	Total
Quantity	1 025	571	505	59	
Price	89,6	75,9	75,9	104,4	
Value at producer prices	919	433	384	61	<u>1 797</u>
Subsidies on product					871
Value at basic prices					2 668

Values with reference year 1995:

Value 1995 at producer prices	1 776				
Subsidies on product 1995			588		
Price index 1998 (1995 = 100)				81,6	
Value 1998 at prod. prices (Price 1995)					<u>2 202</u> (= 1 797 / 0,816)
Volume index				124,0	(= 2 202 / 1 776)
Subsidies on product 1998 (Price 1995)					<u>729</u> (= 588 * 1,240)
Value 1998 at basic prices (Price 1995)					<u>2 931</u>

7. Links to related statistics

- Calculations are based on the same production figures as in ZPA1 and the same producer prices as in PRAG.
- Total quantities used for fodder are the same as in the supply balance sheets.

8. Subsidies and taxes on products

- Compensatory aid for arable crops.
- Registers on payments at Swedish Board of Agriculture, which is paying all compensation aids.
- For each region, the allocation to crops is based on the crop areas.
- The subsidies are incorporated as values.
- The subsidies conferred changes under the application of the accruals principle.
-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and AII the following is valid:

- Preliminary statistics on production is used.
- Quality changes compared to the preceding year are preliminary estimated from the actual harvest conditions.
- For price estimations, price trends for some of the most important months are used.

10. Unit values

-

A. Intra-unit/branch consumption

- The intra-unit/branch consumption of *seeds* is estimated as the difference between the total needs of seeds and certified quantities.
- The intra-unit/branch consumption of *animal feed* is estimated as the difference between the total use according to the supply balance sheets and the use of cereals in the compound animal feedingstuffs sold to the agricultural sector. The latter use is published once a year in a report from Swedish Board of Agriculture.

B. Content

Products covered by the item 'other cereals' (code 01900):

- Triticale

C. Multiplication of seed.

Multiplication of seed is included in the harvest or production figures and no correction has been made for this in the calculation. The acreage for this production is less than 1% of the total acreage of cereals.

2.3 Oilseeds and oleaginous fruits (except olives)

1. Calculation procedure

The principle Value = Usable production * Price is applied, which gives the following procedure:

$$\text{Value}(n-1) = (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = (a)_n * (b)_n$$

$$\text{Volume}(n) = (a)_n * (b)_n / e$$

where a = usable production, b = price and e = price index.

2. Data sources

- Official statistics on production (harvest).
- Official price statistics.
- The two largest enterprises buying oilseeds from the agricultural sector.

3. Level of detail

Calculations are made for rape and turnip rape seed considered as one crop.

4. Adjustments

The prices in the price statistics for produce with water content 9% are adjusted to actual water content.

5. Estimations

Losses in the sector are estimated to 3% of the harvest.

6. Numerical example

Oilseeds and oleaginous fruits 1998 (Production and losses are expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio SEK):

Production	130	
Losses	4	
Usable production	<u>126</u>	
Price (SEK/100 kg)	196	
Value at producer prices		247
Subsidies on product		261
Value at basic prices		<u>509</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

- Calculations are based on the same production figures as in ZPA1 and same producer prices as in PRAG.

8. Subsidies and taxes on products

(i) Compensary aid for arable crops.

(ii) Registers on payments at Swedish Board of Agriculture, which is paying all compensation aids.

(iii) No allocation is needed.

(iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Preliminary production figures are used.

- Quality changes compared to the preceding year are preliminary estimated from the actual harvest conditions.

- For price estimations, price trends for some of the most important months are used.

10. Unit values

-

A. Content

Products covered by the item 'other oleaginous products' (code 02190):

- Linseed.

2.4 Protein crops

1. Calculation procedure

The principle Value = Usable production * Price is used, which gives the following procedure:

$$\text{Value}(n-1) = (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = (a)_n * (b)_n$$

$$\text{Volume}(n) = (a)_n * (b)_n / e$$

where a = usable production, b = price and e = price index.

2. Data sources

- Official statistics on production (harvest).
- Enterprises buying from the agriculture.

3. Level of detail

- Peas, Broad beans, Horse beans, Sweet lupins and Vetches are considered as one product.

4. Adjustments

-

5. Estimations

- Losses in the sector are estimated to 3% of the harvest.
- Prices are estimated as 1,3 * Producer price for barley.

6. Numerical example

Protein crops 1998 (Production and losses are expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio SEK):

Production	88	
Losses	3	
Usable production	<u>85</u>	
Price	120	
Value at producer prices		102
Subsidies on product		55
Value at basic prices		<u>257</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

-

8. Subsidies and taxes on products

- (i) Compensary aid for arable crops.
- (ii) Registers on payments at Swedish Board of Agriculture, which is paying all compensation aids.
- (iii) No allocation is needed.
- (iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and AII the following is valid:

- Preliminary production figures are used.

10. Unit values

-

A. Intra unit/branch consumption

Field peas for cooking and peas used in the compound animal feedingstuffs are separated, the rest is assumed to be used inside the unit.

2.5 Raw tobacco

-

2.6 Sugar beet

1. Calculation procedure

The procedure Value = (Quantity sold to sugar factory) * (Price for actual sugar content) is applied.

$$\text{Value}(n-1) = (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = (a)_n * (b)_n$$

$$\text{Volume}(n) = (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

2. Data sources

(i) Sold quantity and average sugar content from the only one sugar enterprise in Sweden buying sugar beets.

(ii) Average price is based on the EU minimum prices for A- and B-beets with 16 % sugar content converted to actual sugar content and on the prices for C-beets.

3. Level of detail

-

4. Adjustments

-

5. Estimations

-

6. Numerical example

Sugar beet 1998 (Quantity is expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio. SEK):

Quantity sold to sugar industry	2.571	
Price		43,9
Value at producer prices		1 128
Subsidies on product		0
Value at basic prices		1 128

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

- Calculations are based on the same production figures as in ZPA1.
- Price used is the same as in the price series 1371 Unit value in PRAG.

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

- Preliminary estimates of quantities are based on deliveries to sugar factory up to last month.
- Prices are estimated from conversion rates from euro to SEK for the period from July to actual month.

10. Unit values

-

2.7 Other industrial crops

1. Calculation procedure

The principle Value = Usable production * Price is applied:

$$\text{Value}(n-1) = (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = (a)_n * (b)_n$$

$$\text{Volume}(n) = (a)_n * (b)_n / e$$

where a = usable production, b = price and e = price index.

2. Data sources

- Enterprises buying from the agricultural sector.

3. Level of detail

- Only brown beans are included.

4. Adjustments

-

5. Estimations

-

6. Numerical example

Other industrial crops 1998 (Production is expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio SEK):

Usable production	1,58	
Price	700	
Value at producer prices		12
Subsidies on product		0
Value at basic prices		12

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

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8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Production is assumed to be the same as last year.
- Preliminary estimates of prices are used.

10. Unit values

-

A. Content

Products covered by the items

- 'fibre plants' (code 02910): - (none).
- 'other industrial crops: others' (code 02930): Brown beans.

2.8 Forage plants

1. Calculation procedure

The principle Value = Usable production (or quantity) * Price is applied:

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = usable production or quantity, b = price and e = price index.

2. Data sources

- Official statistics on production (harvest) up to 1997, after that estimates of the production.
- Enterprises buying from the agricultural sector.

3. Level of detail

Calculations are made for

- Fodder maize
- Other forage plants

4. Adjustments

-

5. Estimations

- For fodder maize the production is estimated from known area and assumed yield. The price is assumed to be the same as for silage.
- Losses of hay are estimated to 5% - 15% of the harvests.
- After 1997 the yield of hay is estimated from the yields during the period 1992-1996.
- Usable production of straw is estimated to 60-80% of the production of cereals.

6. Numerical example

Other forage plants 1998 (Production and usable quantity expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio SEK):

	Hay	Silage	Total
Usable production	42% = 1 495	58% = 2 064	3 558
Price	180	140	
Value at producer prices	2 690	2 890	<u>5 580</u>
	Straw		
Usable quantity	3 560		
Price	50		
Value at producer prices	1 780		<u>1 780</u>
Subsidies on products			<u>0</u>
Total value at basic prices			<u>7 360</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

-

8. Subsidies and taxes on products

- (i) Compensatory aid for arable crops (silage) from year 2000.
- (ii) Registers on payments at Swedish Board of Agriculture, which is paying all compensation aids.
- (iii) No allocation is needed.
- (iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Preliminary estimates of prices are used.

10. Unit values

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A. Intra unit/branch consumption

- Quantities sold outside the sector is calculated from estimation of uses in other sectors (trotting and riding horses, horses for leisure, circus animals etc.)
- Intra-branch/unit consumption is estimated as production minus calculated quantities sold outside the sector.

B. Content

Products covered by the items

- 'fodder root crops (including forage beet)' (code 03200): - (none)
- 'other forage plants' (code 03900): Hay, silage, straw.

2.9 *Fresh vegetables*

1. Calculation procedure

For 04110 Cauliflowers and 04120 Tomatoes

The principle Value = Usable production * Price is applied.

$$\text{Value}(n-1) = (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = (a)_n * (b)_n$$

$$\text{Volume}(n) = (a)_n * (b)_n / e$$

where a = usable production, b = price and e = price index.

For 04190 Other fresh vegetables products:

For most species the principle Value = Usable production * Price is applied, for a group of products of less importance the value is estimated directly.

$$\text{Value}(n-1) = \Sigma (a)_{n-1} * (b)_{n-1} + (c)_{n-1}$$

$$\text{Value}(n) = \Sigma (a)_n * (b)_n + (c)_n$$

$$\text{Volume}(n) = (\Sigma (a)_n * (b)_n + (c)_n) / e$$

where a = usable production, b = price, c = value and e = price index.

2. Data sources

- Every third year the production is estimated in a special total survey among producers.
- Other years production is estimated from a survey among larger wholesalers, which buy from producers.
- Every year *prices* are estimated from a survey among larger wholesalers, which buy from producers.

3. Level of detail

Values are derived according to point 1 above for each one of about 15 different main vegetables. For the smaller vegetables in value a total value is directly estimated from the answers in the survey among wholesalers.

4. Adjustments

-

5. Estimations

-

6. Numerical example

Other fresh vegetables 1998 (Production expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio SEK):

	Leek	Carrots	.....	”Smaller” veg.	Total
Production	28,0	92,8	.....	-
Price	172	228	.....	-
Value at producer prices	48	212	.....	60	844
Subsidies on product					1
Value at basic prices	48	212	.....	60	<u>845</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

The calculations are based on the same quantity and price figures which are sent ZPA1 and PRAG.

8. Subsidies and taxes on products

- (i) A national subsidy for production of certain kinds of vegetables (and berries) in the north of Sweden.
- (ii) Registers on payments at Swedish Board of Agriculture, which is paying the subsidy.
- (iii) The whole amount is allocated to Vegetables.
- (iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

- Quantities are assumed to be the same as the last year with definitive figures.
- Price trends are estimated from output price index.

A. Content

Products covered by the item 'other fresh vegetables' (code 04190):

Beetroots, cabbage, carrots, cucumbers, iceberg lettuce, leek, lettuce, onions, etc.

2.10 Plants and flowers

1. Calculation procedure

For groups of plants and flowers the principle Value = Usable production * Price is applied.

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = usable production, b = price and e = price index.

2. Data sources

- (i) Every third year the production is estimated in a special total survey among producers.
- (ii) Other years production is estimated from a survey among larger wholesalers, which buy from producers.
- (iii) Every year *prices* are estimated from a survey among larger wholesalers, which buy from producers.

3. Level of detail

In the basic calculation values are derived according to point 1 above for each one of about 40 different main plants and flowers.

4. Adjustments

-

5. Estimations

-

6. Numerical example

Ornamental plants and flowers 1998 (production expressed in 1 000 000 units, prices in SEK/100 units, values and subsidies in mio SEK):

	Cutting- flowers	Potted plant	.....	Ornamental plants and flowers
Usable production	20,2	47,3		
Price	348	908		
Value at producer prices	70	429		1 170
Subsidies on product				0
Value at basic prices				<u>1 170</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

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8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

- Quantities are assumed to be the same as the last year with definitive figures.
- Price trends are estimated from output price index.

A. Field observation / 'nursery plants' (04210) versus 'ornamental plants and flowers (including Christmas trees)' (04420).

- (1) details on how the distinction between both categories has been made.
- In the statistical surveys the enterprises are asked to give information on each of the two product groups. Most enterprises only have production for one of the two groups.

B. Field observation / 'nursery plants' (04210)

(1) Details on how the distinction between agricultural and forestry tree nurseries has been made.

- In the statistical surveys the enterprises are asked to exclude nursery plants for forestry trees.

C. Content 'ornamental plants and flowers (including Christmas trees)' (04420).

(1) Confirmation that Christmas trees have been covered.

- Christmas trees have been covered.

2.11 Potatoes

1. Calculation procedure

The principle Value = Quantity * Price for each use is applied:

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

2. Data sources

- Quantities used for human consumption from supply balance sheets.
- Quantities sold for starch production from starch factory.
- Import and export quantities from official statistics.
- Quantities sold for seeds from supply balance sheets.
- Quantities used for fodder from supply balance sheets.
- The producer price for potatoes for human consumption and seeds is estimated by wholesalers organisation.
- The price for starch production is calculated from the EU minimum price and compensation amount for actual starch content.

3. Level of detail

Calculations are made separately for potatoes for

- human consumption
- starch production
- feed
- seeds

4. Adjustments

-

5. Estimations

- Many of the figures in the supply balance sheets are rather rough estimates. There is no other statistics for potatoes than production, import and export.
- Prices for potatoes for seeds and for fodder are assumed to be twice resp. half of the price for human consumption (or potatoes for starch production).
- Losses outside the sector of potatoes for consumption is assumed to be 12%.
- All quantities for fodder are assumed to be intra unit/branch consumption.

6. Numerical example

Potatoes 1998 (quantities are expressed in 1000 metric tons, prices in SEK/100 kg and values in mio SEK):

	<u>Quantity</u>	<u>Price</u>	<u>Value</u>
A Quantity sold for internal human consumption:	707		
B Import	177		
C Export	37		
Potatoes sold for human consumption (A-B+C)	567	254,3	1 441
Seeds of potatoes for human consumption	19	240,0	45
Fodder from potatoes for human consumption	40	127,2	50
Quantity sold for starch production	299	54,8	164
Seeds of potatoes for starch production	19	240,0	46
Fodder from potatoes for starch production	20	27,4	6
Value at producer prices			1 752
Subsidies			5
Value at basic prices			<u>1 757</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

- Price used for potatoes for human consumption is the same as in the price series 1361 Main crop food potatoes in PRAG.
- Potatoes used for fodder is the same as in the supply balance sheets.

8. Subsidies and taxes on products

- A national subsidy for production of potatoes in some parts of Sweden.
- Registers on payments at Swedish Board of Agriculture, which is paying the subsidy.
- No allocation is needed.
- (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Official preliminary estimates of production are used.
- Preliminary estimates of imports and exports of potatoes for human consumption are used.
- Price trends are estimated from output price index.

2.12 Fruits (total, code 06000)

1. Calculation procedure

For 06110 Table apples and 06120 Table pears the principle Value = Usable production * Price is applied.

$$\text{Value}(n-1) = (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = (a)_n * (b)_n$$

$$\text{Volume}(n) = (a)_n * (b)_n / e$$

where a = usable production, b = price and e = price index.

For 06190 Other fresh fruit, the principle Value = Usable production * Price is applied for most species while for a group of products of less importance the value is estimated directly.

$$\text{Value}(n-1) = \Sigma (a)_{n-1} * (b)_{n-1} + (c)_{n-1}$$

$$\text{Value}(n) = \Sigma (a)_n * (b)_n + (c)_n$$

$$\text{Volume}(n) = (\Sigma (a)_n * (b)_n + (c)_n) / e$$

where a = usable production, b = price, c = value and e = price index.

2. Data sources

(i) Every third year the production is estimated in a special total survey among producers.

(ii) Other years production is estimated from a survey among larger wholesalers, which buy from producers.

(iii) Every year *prices* are estimated from a survey among larger wholesalers, which buy from producers.

3. Level of detail

Values are derived according to point 1 above for each one of seven different fruit species.

For one group, named Other berries, a total value is directly estimated from the answers in the survey among wholesalers.

4. Adjustments

-

5. Estimations

Of the total production of apples and pears, 85% is estimated to be table apples and table pears.

6. Numerical example

Other fresh fruit 1998 (production expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio SEK):

	Straw-berries	Plums	.....	”Other berries”	Other fresh fruit
Production	9,1	0,6	.....	-
Price	3 398	821	.....	-
Value at producer prices	190	5	.....	1	220
Subsidies on product					0
Value at basic prices					<u>220</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

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8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

- Quantities are assumed to be the same as the last year with definitive figures.

- Price trends are estimated from output price index.

A. Content

Products covered by the item 'other fresh fruit' (code 06190):

Apples, blackcurrants, cherries, pears, plums, raspberries and strawberries.

2.13 Wine

-

2.14 Olive oil

-

2.15 Other crop products

1. Calculation procedure

For one product the principle Value = Usable production * Price is applied while for the other product the value is estimated directly.

$$\text{Value}(n-1) = (a)_{n-1} * (b)_{n-1} + (c)_{n-1}$$

$$\text{Value}(n) = (a)_n * (b)_n + (c)_n$$

$$\text{Volume}(n) = ((a)_n * (b)_n + (c)_n) / e$$

where a = usable production, b = price, c = value and e = price index.

2. Data sources

Quantities and prices for seeds for cultivated grasslands are the same as reported to EU in accordance with regulation (EEC) No. 3083/73 of the Commission.

3. Level of detail

Only production of seeds is included.

4. Adjustments

-

5. Estimations

The value of seeds for vegetables, fruit and flowers is roughly estimated.

6. Numerical example

Other crop products 1998 (production expressed in 1000 metric tons, prices in SEK/100 kg, values and subsidies in mio SEK):

	Seeds for cultivated grassland	Seeds for vegetables, fruits and flowers	Other crop products
Usable production	3		
Price	753		
Value at producer prices	23	1	24

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

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8. Subsidies and taxes on products

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9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

Quantities and prices are assumed to be the same as for the last year with definitive figures.

10. Unit values

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A. Content / 'Seeds' (09200)

Products covered by this item:

- Seeds for cultivated grasslands
- Seeds for vegetables, fruit and flowers

B. Content

Products covered by the item 'other crop products: others' (code 09900):

- (none).

2.16 Cattle (including calves)

1. Calculation procedure

The principle Value = Quantity (1000 tons or 1000 units) * Price is applied for some parts of the calculation while the values are estimated directly in other parts.

$$\text{Value}(n-1) = \Sigma (a)_{n-1} * (b)_{n-1} + (c)_{n-1}$$

$$\text{Value}(n) = \Sigma (a)_n * (b)_n + (c)_n$$

$$\text{Volume}(n) = (\Sigma (a)_n * (b)_n + (c)_n) / e$$

where a = quantity, b = price, c = value and e = price index.

2. Data sources

- Change in number of animals: Statistical surveys in December.
- Number of slaughtered animals and quantities in kg: Slaughter register at Swedish Board of Agriculture.
- Prices for meat and live animals: Organisation of slaughter houses.

3. Level of detail

Calculations are based on data for each one of following categories:

- Calves
- Heifers
- Steers
- Bulls
- Milk cows
- Other cows

4. Adjustments

-

5. Estimations

- Number of slaughterings outside slaughter houses are estimated to 2% of the total number of calves.
- Producer values for exported animals are assumed to be 2/3 of the exported values.

6. Numerical example

Cattle 1998:

A. Incomes from slaughterings.

	Calves at slaughter- house	Calves outside slaughter- house	Adult cattle	Total
Quantity (1000 tons)	4,0	0,8	138,5	
Price (SEK/100 kg)	16,71	1 644	1 980	
Value (mio SEK)	66	13	2 743	<u>2 822</u>

B. Value of export (mio SEK) 9

C. Value of import (mio SEK) 0

D. Stock changes

	Calves	Adult cattle	Total
Change in number of animals (1000 units)	-28,9	23,7	
Slaughtering value per animal (SEK)	625	3 185	
Value (mio SEK)	-18	76	<u>58</u>

E. Change in number of capital animals

	Milk cows	Other cows	Total
Change in number of animals (1000 units)	9,3	-0,8	
Value per live animal (SEK)	8 700	7 875	
Value (mio SEK)	81	-6	<u>75</u>

F. Culling discount

Number of slaughtered capital animals (1000 units)	189,6	
Value per live animal (SEK)	8 323	
Value per slaughtered animal (SEK)	4 314	
Value of "culling discount" (mio SEK)		<u>773</u>

Total value at producer prices (mio SEK) 3 737

Subsidies to products (mio SEK) 489

Total value at basic prices (mio SEK) 4 226

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

- Number of slaughtered animals are the same as in ZPA1.

8. Subsidies and taxes on products

- (i) Premiums for cattle (for suckler cows and special premiums), premiums for slaughtering of calves and other cattle.
- (ii) Registers on payments at Swedish Board of Agriculture, which is paying all premiums.
- (iii) No allocation is needed.
- (iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

Estimates of quantities and prices are based on known figures for the actual year, which are compared with the corresponding figures (same period) during the preceding year.

10. Unit values

The live weights for slaughtered animals are calculated by dividing slaughtered weights with the factors 0.45 (cows), 0.55 (other adult animals) and 0.50 (calves).

A. Calculation method

See numerical example.

2.17 Pigs

1. Calculation procedure

The principle Value = Quantity (1000 tons or 1000 units) * Price is applied for some parts of the calculation while the values are estimated directly in other parts.

$$\text{Value}(n-1) = \Sigma (a)_{n-1} * (b)_{n-1} + (c)_{n-1}$$

$$\text{Value}(n) = \Sigma (a)_n * (b)_n + (c)_n$$

$$\text{Volume}(n) = (\Sigma (a)_n * (b)_n + (c)_n) / e$$

where a = quantity, b = price, c = value and e = price index.

2. Data sources

- Change in number of animals: Statistical surveys in December.
- Number of slaughtered animals and quantities in kg: Slaughter register at Swedish Board of Agriculture.
- Prices for meat and live animals: Organisation of slaughter houses.

3. Level of detail

Calculations are based on data for each one of following categories:

- Pigs for slaughter
- Sows
- Boars

4. Adjustments

-

5. Estimations

- The slaughtering outside slaughterhouses are estimated to 0.5% of the slaughtering at slaughterhouses.
- Producer prices for exported animals are assumed to be 2/3 of the exported values.

6. Numerical example

Pigs 1998:

A. Incomes from slaughtering.

	At slaughter- house	Outside slaughter- house	Total
Quantity (1000 tons)	330,4	1,7	
Price (SEK/100 kg)	1 040	1 008	
Value (mio SEK)	3 436	17	<u>3 453</u>

B. Value of export (mio SEK) 5

C. Value of import (mio SEK) 0

D. Stock changes

	Slaughtering pigs	Piglets	Total
Change in number of animals (1000 units)	17,0	-24,0	
Slaughtering value per animal (SEK)	435	94	
Value (mio SEK)	7	-2	<u>5</u>

E. Change in number of capital animals

	Sows	Boars	Total
Change in number of animals (1000 units)	-24,0	-1,0	
Value per live animal (SEK)	2 375	3 443	
Value (mio SEK)	-57	-3	<u>-60</u>

F. Culling discount

	Sows	Boars	Total
Number of slaughtered animals (1000 units)	89,1	23,2	
Value per live animal (SEK)	2 375	3 443	
Value per slaughtered animal (SEK)	715	227	
Value of "culling discount" (mio SEK)	148	75	<u>223</u>

Total value at producer prices (mio SEK) 3 625

Subsidies to products (mio SEK) 14

Total value at basic prices (mio SEK) 3 639

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

- Number of slaughtered animals are the same as in ZPA1.

8. Subsidies and taxes on products

- (i) National subsidies for production of piglets and slaughtering pigs.
- (ii) Registers on payments at Swedish Board of Agriculture, which is paying all subsidies.
- (iii) No allocation is needed.
- (iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

Estimates of quantities and prices are based on known figures for the actual year, which are compared with the corresponding figures (same period) during the preceding year.

10. Unit values

The live weights of slaughtered animals are calculated by dividing slaughtered weights with the factors 0.73 (slaughter pigs), 0.6 (sows) and 0.50 (boars).

A. Calculation method

See numerical example.

2.18 Poultry

1. Calculation procedure

For different categories the principle Value = (Number of slaughtered animals) * (Price) is applied.

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = (\sum (a)_n * (b)_n) / e$$

2. Data sources

- Slaughter houses.

3. Level of detail

Calculations are made for each of the categories:

- Chicken
- Laying hens
- Broiler mothers (BM)
- Turkeys
- Ducks
- Geese
- Ostriches

4. Adjustments

-

5. Estimations

- Producer prices for exported animals are assumed to be 2/3 of the exported values.

6. Numerical example

Poultry 1998:

	<u>Chicken</u>	<u>Hens</u>	<u>Turkeys</u>	<u>....</u>	<u>Total</u>
No of slaughtered animals (1,000,000 units)	62,3	4,2	0,5		
Average slaughter weight (kg)	1,28	1,11	4,88		
Producer price (SEK/100kg)	913	0	1 667		
Slaughtered value (mio SEK)	<u>726</u>	<u>0</u>	<u>42</u>	....	777
Net value from foreign trade (mio SEK)					2
Value at producer prices (mio SEK)					<u>779</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

Estimates of quantities and prices are based on known figures for the the actual year, which are are compared with the corresponding figures (same period) during the preceding year.

10. Unit values

-

A. Calculation method

See numerical example.

2.19 Sheep and goats

1. Calculation procedure

The principle Value = Quantity (1000 tons or 1000 units) * Price is applied for some parts of the calculation while the values are estimated directly in other parts.

$$\text{Value}(n-1) = \Sigma (a)_{n-1} * (b)_{n-1} + (c)_{n-1}$$

$$\text{Value}(n) = \Sigma (a)_n * (b)_n + (c)_n$$

$$\text{Volume}(n) = (\Sigma (a)_n * (b)_n + (c)_n) / e$$

where a = quantity, b = price, c = value and e = price index.

2. Data sources

- Change in number of animals: Statistical surveys in December.
- Number of slaughtered animals and quantities in kg: Slaughter register at Swedish Board of Agriculture.
- Prices for meat: Slaughter houses.
- Prices for live animals: Organisation of slaughter houses.

3. Level of detail

Calculations are made separately for

- Sheep
- Lambs

4. Adjustments

-

5. Estimations

The total number of slaughtered lambs and sheep in year n is estimated from the number of slaughtered sheep in n and the change in the number of sheep between n-1 and n.

6. Numerical example

Sheep and goats 1998:

A. Incomes from slaughtering.

	Lambs at slaughter house	Lambs outside slaughter house	Sheep at slaughter house	Sheep outside slaughter house	Total
Quantity (1000 tons)	2,78	0,19	0,71	0,27	
Price (SEK/100 kg)	2 325	2 217	593	485	
Value of slaughterings (mio SEK)	65	4	4	1	74

B. Value of export (mio SEK) 0

C. Value of import (mio SEK) 0

D. Stock changes

	Lambs	Total
Change in number of animals (1000 units)	1,5	
Slaughtering value per animal (SEK)	198	
Value (mio SEK)	0	0

E. Change in number of capital animals

	Sheep	Total
Change in number of animals (1000 units)	-0,7	
Value per live animal (SEK)	990	
Value (mio SEK)	-1	-1

F. Culling discount

	Sheep	Total
Number of slaughtered animals (1000 units)	27,9	
Value per live animal (SEK)	990	
Value per slaughtered animal (SEK)	123	
Value of "culling discount" (mio SEK)	24	24

Total value at producer prices (mio SEK)	<u>98</u>
Subsidies on products	39
Total value as basic prices (mio SEK)	<u>138</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

- Number of slaughtered animals are the same as in ZPA1.

8. Subsidies and taxes on products

- (i) Premiums for ewes and she-goats and national subsidies for goats.
- (ii) Registers on payments at Swedish Board of Agriculture, which is paying all premiums and subsidies.
- (iii) No allocation is needed.
- (iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

Estimations are based on known figures for the actual year, which are compared with the corresponding figures (same period) during the preceding year.

10. Unit values

The live weights of slaughtered animals are calculated by dividing slaughtered weights with the factors 0.41 (lambs), and 0.45 (sheep).

A. Calculation method

See numerical example.

2.20 Equines and other animals

1. Calculation procedure

For some parts of the calculation the principle Value = (Number of sold/slaughtered animals) * Price is applied while for other parts the values are estimated directly.

$$\text{Value}(n-1) = \Sigma (a)_{n-1} * (b)_{n-1} + \Sigma (c)_{n-1}$$

$$\text{Value}(n) = \Sigma (a)_n * (b)_n + \Sigma (c)_n$$

$$\text{Volume}(n) = (\Sigma (a)_n * (b)_n + \Sigma (c)_n) / e$$

where a = number of animals, b = price, c = value and e = price index.

2. Data sources

- Breeders organisations
- Slaughter houses

3. Level of detail

Calculations are made for

- each one of eight horse races,
- rein deers,
- breeding of deers and wild boars inside fences,
- breeding of pets (dogs).

4. Adjustments

-

5. Estimations

- The number of horses and dogs sold outside the sector are estimated from the number of foals and puppies in different registers.

6. Numerical example

1998

a. Equines:

	Half- Breed	Cold- blood type	Ponies	...	Total
Number of sold animals	2 432	825	1 777		
Producer selling price (SEK)	24 200	11 600	5 900		
Selling values (mio SEK)	59	9	10		385
Premiums for breeders (mio SEK)					66
Value at producer prices (mio SEK)					<u>451</u>

b. Rein deers

Slaughtered quantity at slaughter houses (1000 tons)	1,3
Producer price (SEK/100 kg)	4 130
Value of slaughterings at slaughter houses (mio SEK)	54
Value of slaughterings outside slaughter houses (mio SEK)	10
Compensation for rein deers killed by	
Predatory animals (mio SEK)	30
Trains (mio SEK)	2
Other traffic (mio SEK)	4
Other compensation (mio SEK)	11
Selling of skins (mio SEK)	5
Value at producer prices (mio SEK)	<u>116</u>
Subsidies on product (mio SEK)	19
Value at basic prices(mio SEK)	<u>135</u>

7. Links to related statistics

-

8. Subsidies and taxes on products

- (i) National price subsidy to the production of rein deer meat.
- (ii) Registers on payments at Swedish Board of Agriculture, which is paying the subsidy.
- (iii) No allocation is needed.
- (iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

Quantities and prices are assumed to be the same as for the last year with definitive figures.

10. Unit values

-

A. Content

Products covered by the item 'other animals':

- Rein deers
- Breeding of deers and wild boars inside fences,
- Breeding of pets (dogs).

B. Calculation method

Se example.

2.21 Milk

1. Calculation procedure

The principle Value = Deliveries to dairies plus home consumption and direct selling * Price is applied.

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

2. Data sources

Quantities and prices are received from Svensk Mjölks AB (the association of Swedish dairies).

3. Level of detail

- Cows milk.
- Sheep milk.
- Goats milk.

4. Adjustments

-

5. Estimations

The production of sheep and goats milk, which is very small in Sweden, is roughly estimated.

6. Numerical example

Cows milk 1998:

Quantity delivered to dairies (1000 tons)	3 277	
Home consumption (1000 tons)	12	
Direct selling to consumers (1000 tons)	2	
Producer price (SEK/100 kg)	296	
Value at producer prices (mio SEK)		9 741
Subsidies on product (mio SEK)		268
Value at basic prices (mio SEK)		<u>10 010</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

- Production figures are the same as in ZPA1.
- Price figures are the same as in the price series 8185 (Raw cows' milk, actual fat content (unit value) in PRAG

8. Subsidies and taxes on products

- (i) National subsidies to the production of milk in the north of Sweden.
- (ii) Registers on payments at Swedish Board of Agriculture, which is paying all subsidies.
- (iii) No allocation is needed.
- (iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Estimates of quantities and prices are based on known figures for the actual year, which are compared with the corresponding figures (same period) during the preceding year.

10. Unit values

-

A. Content

There have not been any penalties in Sweden.

2.22 Eggs

1. Calculation procedure

The principle Value = Production * Price is applied.

$$\text{Value}(n-1) = (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = (a)_n * (b)_n$$

$$\text{Volume}(n) = (a)_n * (b)_n / e$$

where a = production, b = price and e = price index.

2. Data sources

- The wholesalers of eggs.

3. Level of detail

One product: eggs from hens.

4. Adjustments

-

5. Estimations

Of the total production of eggs, 65% is assumed to be sold to wholesalers and 35% sold in other marketing channels.

6. Numerical example

Eggs 1998:

Quantity sold to wholesalers (1000 tons)	69,2	
Quantity sold to others (1000 tons)	37,3	
Producer price (SEK/100 kg)	827	
Value at producer prices (mio SEK)		<u>880</u>
Subsidies on product (mio SEK)		2
Value at basic prices (mio SEK)		<u>883</u>

Values with reference year 1995 are derived in the same way as for cereals.

7. Links to related statistics

Production figures are the same as in ZPA1.

Price figures correspond to the price series in 5315 (Fresh eggs, whole country) in PRAG.

8. Subsidies and taxes on products

(i) National subsidy to the production of eggs in some parts of Sweden.

(ii) Registers on payments at Swedish Board of Agriculture, which is paying the subsidy.

(iii) No allocation is needed.

(iv) – (vi) See 2.2 Cereals.

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Estimates are based on known figures for the actual year, which are compared with the corresponding figures (same period) during the preceding year.

10. Unit values

-

A. Calculation method

See the numerical example.

2.23 Other animal products

1. Calculation procedure

The principle: Value = (Produced quantity) * (Price) is applied.

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = (\sum (a)_n * (b)_n) / e$$

where a = quantity, b = price and e = price index.

2. Data sources

Mainly from producer organisations.

3. Level of detail

- Raw wool.
- Honey from bees.
- Furs from foxes.
- Furs from minks.

4. Adjustments

-

5. Estimations

-

6. Numerical example

Other animal products 1998:

Raw wool sold (1000 kg)	100		
Producer price (SEK/100 kg)		2 200	
Value at producer prices (mio SEK)			<u>2</u>
Number of <u>bee</u> hives (1000)	90,0		
Production per hive (kg)	17,2		
Average producer price (SEK/100 kg)		5 170	
Value at producer prices (mio SEK)			<u>80</u>
	<u>Mink</u>	<u>Fox</u>	<u>Total</u>
Number of sold <u>furs</u> (1000 units)	1 300	20	
Producer price (SEK/skin)	180	550	
Value at producer prices (mio SEK)	234	11	<u>245</u>
Total for Other animal products			<u>327</u>

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

Quantities and prices are assumed to be the same as for the last year with definitive figures.

10. Unit values

-

A. Content

- Skins from fur animals
- Honey from bees

2.24 Agricultural services (including renting of milk quota)

1. Calculation procedure

Statistical estimation.

2. Data sources

FADN

3. Level of detail

-

4. Adjustments

The incomes of agricultural services are assumed to be the same as estimated costs for agricultural services.

5. Estimations

-

6. Numerical example

-

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

The volume is assumed to be the same as in the last definitive account.

10. Unit values

-

2.25 Secondary activities (inseparable)

1. Calculation procedure

Statistical estimation.

2. Data sources

FADN

3. Level of detail

-

4. Adjustments

-

5. Estimations

The amount of agricultural services to other enterprises/organisations than farm holdings is estimated as the total estimated amount from incomes of agricultural services minus costs for agricultural services.

6. Numerical example

-

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and AII the following is valid:

The volume is assumed to be the same as in the last definitive account.

10. Unit values

-

A. Calculation method

-

3 COMPONENTS OF THE PRODUCTION ACCOUNT: INTERMEDIATE CONSUMPTION

3.1 General

Data sources (principal):

	FADN	Calcula- tions	Special Survey	DU ¹	Price lists, others
Seeds		x			
Electricity				x	
Other fuels and propellants				x	
Fertilizers			x		
Soil improvers		x			x
Plant protection products		x	x		x
Veterinary costs	x			x	
Feeding stuffs		x			x
Maintenance materials	x				
Maintenance buildings	x				
Agricultural services	x				
Other goods and services	x				

¹ Survey of Declaration for income tax purposes in agriculture (last complete survey done 1990, partial surveys 1991-94)

3.2 Individual intermediate consumption items

3.2.1 *Seeds and planting stocks*

1. Calculation procedure

For cereals, oil seeds, protein crops, sugar beet, forage plants and potatoes the principle

Value = Quantity * Price is applied:

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

For other products:

A value is estimated directly (part of output value).

2. Data sources

- Official statistics on the use of arable land.
- Price statistics.
- Information from the organization for certifying seeds (cereals).

3. Level of detail

Estimations are made separately for cereals, oil seeds, protein crops, sugar beet, forage plants, potatoes, fresh vegetables, flowers and horticultural plants, fresh fruits.

The cost for subcontracted weeding of the farms own seed is added (only cereals).

4. Adjustments

-

5. Estimations

- Quantities for cereals, oil seeds, protein crops, sugar beet, forage plants and potatoes are estimated from utilized areas and the estimated consumption per hectare.
- Prices for cereals, protein crops, sugar beet and forage plants are estimated as a multiple of producer prices.

6. Numerical example

Cereals 1998 (quantities expressed in metric tons and values in milj. SEK):

Total consumption	256,6
Of which:	
certified quantities	189,0
intra-unit consumption	67,6
intra-branch consumption	0,0
Average price (SEK/kg)	2,56
Cost for certified quantities	484
Subcontracted weeding:	
Quantity	67,6
Price (half of average price above)	1,28
Cost for subcontracted weeding	86
Total value at basic prices	570

Values with reference year 1995:

Value at basic prices	570
Price index 1998 (1995=100)	92,8
Value 1998 at 1995 basic prices	614

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Preliminary figures on the use of arable land are used.
- Preliminary estimates of prices are used.

A. Intra-unit/branch consumption

Intra-unit consumption is only estimated for cereals and potatoes as total consumption minus certified quantities.

Intra-branch consumption is assumed to be zero.

3.2.2 Energy; lubricants

1. Calculation procedure

Mostly the principle Value = Quantity * Price is applied:

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

For other fuels and propellants in small parts of the sector the value is directly estimated (part of output value).

2. Data sources

- Official statistics on the use of arable land.
- Price statistics.

3. Level of detail

Calculations are made separately for

- electricity
- other fuels and propellants.

4. Adjustments

-

5. Estimations

The calculations are based on surveys among holdings in the early 1990s. After that the change in the quantity of electricity used in agriculture is estimated by the change in the use of arable land for growing cereals. For other fuels and propellants the areas used for growing potatoes, ley for hay, sugar beet and oil seeds are also taken into account.

For 1998 an extra 20% use of electricity is estimated due to the high water contents in cereals.

6. Numerical example

Electricity 1998 (values expressed in milj. SEK):

Basic value 1997	1 114
Index 1997=100:	
Price	100,3
Change of area used for cereals	103,2
Corr. high water content	120,0
Total change in value	124,1
Value at basic prices	1 383

Values with reference year 1995 are derived in the same way as for seeds and planting stocks.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Preliminary figures on the use of arable land are used.
- Preliminary estimates of prices are used.

A. Content:

Products covered by the item 'other' (code 19029): None.

3.2.3 Fertilizers and soil improvers

1. Calculation procedure

For fertilizers a value directly estimated.

For lime products the principle Value = Quantity * Price is applied:

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

2. Data sources

- Yearly census on sales of fertilizers and soil improvers for agriculture and horticulture.
- Sales of different lime products for agricultural and horticultural purposes (1 000 metric tons) according to environmental statistics.
- Price statistics.

3. Level of detail

Calculations are made separately for

- fertilizers
- lime products.

4. Adjustments

-

5. Estimations

The price of lime products is constant over the years.

6. Numerical example

Fertilizers and soil improvers 1998 (values expressed in milj. SEK):

Value of fertilizers at basic prices	
agriculture	1 614
horticulture	85
Quantity lime products (1 000 metric tons)	139,3
Price lime products (SEK/kg)	0,20
Value lime products	28
Reduction for after payments	-20
Total value at basic prices	1 707

Values with reference year 1995 are derived in the same way as for seeds and planting stocks.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- Preliminary estimates of prices are used.

3.2.4 Plant protection products, herbicides, insecticides and pesticides

1. Calculation procedure

The value is directly estimated.

2. Data sources

Yearly census/survey on sales of plant protection products for agriculture and horticulture.

3. Level of detail

-

4. Adjustments

-

5. Estimations

-

6. Numerical example

Plant protection products 1998 (values expressed in milj. SEK):

Value at basic prices	
agriculture	735,4
horticulture	32,3
Reduction for after payments	-9
Total value at basic prices	759

Values with reference year 1995 are derived in the same way as for seeds and planting stocks.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and AII the following is valid:

- Preliminary estimates of prices are used.

3.2.5 Veterinary expenses

1. Calculation procedure

The value is directly estimated.

2. Data sources

- FADN.
- Price statistics.

3. Level of detail

-

4. Adjustments

-

5. Estimations

The volume is assumed to be constant since 1997.

6. Numerical example

Veterinary expenses 1998 (values expressed in milj. SEK):

Basic value 1997	236
Index 1997=100:	
Price	102,1
Value at basic prices	241

Values with reference year 1995 are derived in the same way as for seeds and planting stocks.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and AII the following is valid:

- Preliminary estimates of prices are used.

3.2.6 Feedingstuffs

1. Calculation procedure

- For intra-unit/branch consumption values from output calculations are used.
- For feedingstuffs purchased outside the agricultural sector and for industrial by-products the principle Value = Quantity * Price is applied:

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

- For the use of purchased feedingstuffs in the smaller production sectors (such as production of honey, rein deer meat etc) a value is estimated directly (as a fraction of output value).

2. Data sources

- A yearly census among the producers of feedingstuffs.
- Price statistics.

3. Level of detail

-

4. Adjustments

-

5. Estimations

By-products from mills, oil and sugar industry estimated to be a constant quantity from year to year as well as feedingstuffs of animal origin.

6. Numerical example

Feedingstuffs 1998 (values expressed in milj. SEK, quantities in 1000 metric tons, prices in SEK/kg)

	Intra-unit	-branch	
Output value:			
Cereals	1 151	288	
Protein crops	86	-	
Maize	24	-	
Potatoes	45	11	
Hay and silage	3 826	957	
Total	5 131	1 255	
Purchases from outside sector	Quantity	Price	Value
Poultry	504,1	1,992	1 004
Concentrate, pigs	126,1	2,994	378
Mixture, pigs	535,6	1,868	1 001
Concentrate, cattle	255,5	2,225	568
Mixture, cattle	921,8	1,885	1 738
Minerals	16,0	5,448	87
Reduction for after payments			-54
Total			4 721

Industrial by-products	327
Other purchases	352
Total value at basic price	11 787

Values with reference year 1995 are derived in the same way as for seeds and planting stocks.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

- The volume is assumed to be the same as in the last definitive account.
- Preliminary estimates of prices are used.

A. Intra-unit/branch consumption:

(1) Details on the calculation.

Intra-unit/branch use of:

- cereals, protein crops, maize and potatoes from output calculations
- hay and silage (except for horse-breeding) as the remainder of output when deliveries for horse-breeding and uses outside the agriculture has been withdrawn
- hay and silage for horse-breeding estimated from the number of mares in breeding, total number of foals registered and the need of hay etc per animal.

(2) Distinction between intra-unit and trade between holdings?

The feedingstuffs used within the sector is assumed to be 80% intra-unit and 20% intra-branch consumption (except protein crops, maize and hay etc. where the assumption is 100% intra-unit).

(3) Confirm that subsidies on products have been deducted.

Prices used for valuation of intermediate consumption are producer prices. Subsidies are thus not included.

B. Link to output

(1) Info on the link between values recorded as intra-unit/branch cons. And the relevant output products.

See point A (1) above.

3.2.7 Maintenance of materials

1. Calculation procedure

A value is estimated directly.

2. Data sources

FADN.

3. Level of detail

Estimate of total maintenance cost is principally based on FADN.

4. Adjustments

-

5. Estimations

Materials estimated to be 72% of total maintenance in the parts of the sector covered by FADN.

In other parts of the sector maintenance of materials is estimated as a fraction of output value.

6. Numerical example

Maintenance of materials 1998 (values expressed in milj. SEK):

Value of total maintenance (FADN)	2 786
of which: materials 72%	2 006
Other parts of the sector	74
Total value at basic price	2 080

Values with reference year 1995 are derived in the same way as for seeds and planting stocks.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

The volume is assumed to be the same as in the last definitive account.

3.2.8 Maintenance of buildings

1. Calculation procedure

A value is estimated directly.

2. Data sources

FADN.

3. Level of detail

Estimate of total maintenance cost is principally based on FADN.

4. Adjustments

-

5. Estimations

Buildings estimated to be 28% of total maintenance in the parts of the sector covered by FADN.

In other parts of the sector maintenance of buildings is estimated as a fraction of output value.

6. Numerical example

Maintenance of buildings 1998 (values expressed in milj. SEK):

Value of total maintenance (FADN)	2 786
of which: buildings 28%	780
Other parts of the sector	52
Total value at basic price	832

Values with reference year 1995 are derived in the same way as for seeds and planting stocks.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

The volume is assumed to be the same as in the last definitive account.

3.2.9 Agricultural services

1. Calculation procedure

The value is identical to that of output item "agricultural services output", (code 15000).

2. Data sources

-

3. Level of detail

-

4. Adjustments

-

5. Estimations

-

6. Numerical example

-

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

-

A. Link to output

If the values recorded under this heading are different from those recorded under the corresponding output heading, please explain the reason.

Values are identical.

3.2.10 Other goods and services

1. Calculation procedure

A value is estimated directly.

2. Data sources

FADN.

3. Level of detail

Estimate of cost for other goods and services is principally based on FADN.

4. Adjustments

-

5. Estimations

In those parts of the sector that are not covered by FADN costs for other goods and services are estimated as a fraction of output value.

6. Numerical example

Other goods and services 1998 (values expressed in milj. SEK):

Value (FADN)	3 732
Other parts of the sector	958
Rent of buildings	120
Cost of intra-unit straw	1 123
Total value at basic price	5 933

Values with reference year 1995 are derived in the same way as for seeds and planting stocks.

7. Links to related statistics

-

8. Subsidies and taxes on products

-

9. Provisional and semi-definitive accounts and Agricultural Income Index versus definitive accounts.

In provisional and semi-definitive accounts and All the following is valid:

The volume is assumed to be the same as in the last definitive account.

A. Content:

Products covered by this item:

Goods covered are for exemple twine, cleansers and disinfectants, peat litter, filters, salt and intra-unit straw consumption. Services are freights, insurances, semen costs, costs for dairy cow recording schemes, book keeping, telephone, leasing of tanks, rent of buildings etc.

3.3 Calculation of non-deductible VAT

A. Calculation method:

Not applicable.

4. COMPONENTS OF THE GENERATION OF INCOME ACCOUNT

4.1 Compensation of employees

1. Calculation procedure

A value is estimated directly.

2. Data sources

- AWU, salaried.
- Agricultural wages.

3. Level of detail

-

4. Adjustments

-

5. Estimations

Compensation of employees is based on surveys from the early 1990s. After that it has been estimated by the change in salaried AWU and agricultural wages.

6. Numerical example

Compensation of employees 1998 (values expressed in milj. SEK):

Value 1997	2 033
Index 1997=100:	
Wages	104,1
AWU	97,5
Total change in value	101,5
Value at basic prices	2 063

A. Content:

List items covered (see manual 3.09.1 och 3.10.1)

- direct basic wages and salaries
- enhanced rates for overtime, night or weekend work etc.
- compensation for days not actually worked, paid holidays.

4.2 Other taxes on production

-

4.3 Other subsidies on production

1. Calculation procedure

Values are fetched from registers over subsidy payments.

2. Data sources

-

3. Level of detail

- Values are fetched separately for each kind of subsidy.

4. Adjustments

-

5. Estimations

-

6. Numerical example

-

A. Content:

List of items covered (see manual 3.27.7)

- Grants for land set-aside.
- Extensification premiums.
- Grants for agricultural production in less-favoured and/or mountainous areas.
- Other grants intended for example to influence methods of production, to safeguard the cultural and natural heritage, i.e. all subsidies payed for environmental reasons.
- Amounts paid to holders as compensation for losses of crop or livestock products.

B. Accruals principle

-

C. Over-compensation of VAT

-

5. COMPONENTS OF THE ENTREPRENEURIAL INCOME ACCOUNT

5.1 *Rents and other real estate rental charges to be paid*

1. Calculation procedure

The principle Value = Quantity * Price is applied:

$$\text{Value}(n-1) = \sum (a)_{n-1} * (b)_{n-1}$$

$$\text{Value}(n) = \sum (a)_n * (b)_n$$

$$\text{Volume}(n) = \sum (a)_n * (b)_n / e$$

where a = quantity, b = price and e = price index.

2. Data sources

- Yearly (or every two years) survey of average prices.
- Official statistics on the use of arable land.

3. Level of detail

A value is estimated for both arable land and pasture.

4. Adjustments

-

5. Estimations

A part of the total value is assumed to be due to farm buildings and is registered under another headline. This value is estimated from the survey.

6. Numerical example

Rents 1998 (values expressed in milj. SEK, quantities in 1000 hecтар, prices in SEK/hectar)

Average price, arable land	1 099
Average price, pasture	324
Area rented, arable land	1 166
Area rented, pasture	131
Total value	1 324
of which buildings (code 19090)	120
Total value at basic price	1 204

Values with reference year 1995 are derived in the same way as for intermediate consumption.

A. Taxes

-

5.2 *Interest paid*

1. Calculation procedure

A value is estimated directly.

2. Data sources

FADN.

3. Level of detail

-

4. Adjustments

-

5. Estimations

In those parts of the sector that are not covered by FADN interest paid is estimated as a fraction of output value.

6. Numerical example

Interest paid 1998 (values expressed in milj. SEK)

Value (FADN)	3 160
Other parts of the sector	194
Total value at basic price	3 355

Values with reference year 1995 are derived in the same way as for intermediate consumption.

A. Subsidies

-

5.3 *Interest received*

1. Calculation procedure

A value is estimated directly.

2. Data sources

FADN.

3. Level of detail

-

4. Adjustments

-

5. Estimations

-

6. Numerical example

Interest received 1998 (values expressed in milj. SEK)

Total value at basic price (FADN)	172
-----------------------------------	-----

Values with reference year 1995 are derived in the same way as for intermediate consumption.

6. ELEMENTS OF THE CAPITAL ACCOUNT

6.1 Gross fixed capital formation

6.1.1 GFCF in agricultural products

1. Calculation procedure

The value is the sum of ‘change in the number of capital animals’ and ‘culling discount’ for cattle, pigs, sheep and goats.

2. Data sources

Output calculations.

3. Level of detail

-

4. Adjustments

-

5. Estimations

-

6. Numerical example

GFCF in agricultural products 1998 (values expressed in milj. SEK):

Change in number of capital animals, cattle	75
Culling discount, cattle	773
Change in number of capital animals, pigs	-60
Culling discount, pigs	223
Change in number of capital animals, sheep and goats	-1
Culling discount, sheep and goats	24
Total value at basic price	1 034

Values with reference year 1995 are derived in the same way as for intermediate consumption.

6.1.2 GFCF in non-agricultural products

1. Calculation procedure

A value is estimated directly.

2. Data sources

Yearly census/survey of deliveries of equipment for agriculture.

3. Level of detail

Calculations are made separately for

- Tractors etc.
- Equipment for harvest and threshing.
- Equipment for soil preparation, sowing etc.
- Other equipment
- Buildings.

4. Adjustments

-

5. Estimations

Fixed capital formation of equipment in agriculture is estimated with a fixed coefficient for each subgroup.

Fixed capital formation of buildings in agriculture is based on surveys from the early 1990s. After that the building investment is estimated by the planned number of places in new cattle houses.

For other sub-sectors investment is estimated as part of output value.

6. Numerical example

GFCF in non-agricultural products 1998 (values expressed in milj. SEK):

GFCF of transport equipment in agriculture	1 881
Investment of transport equip in other parts of the sector	20
GFCF of other equipment in agriculture	2 342
GFCF of buildings in agriculture	1 137
Investment of buildings in other parts of the sector	465
Total value at basic price	5 845

Values with reference year 1995 are derived in the same way as for intermediate consumption.

6.2 Consumption of fixed capital (CFC)

1. Calculation procedure

A value is estimated directly.

2. Data sources

GFCF calculations.

3. Level of detail

Estimates are made separately for

- equipment
- buildings.

4. Adjustments

-

5. Estimations

6. Numerical example

Fixed capital consumption 1998 (values expressed in milj. SEK):

Equipment:

Fixed capital consumption in agriculture	4 555
Depreciation in other parts of the sector	20
Total	4 575

Buildings:

Fixed capital consumption in agriculture	753
Depreciation in other parts of the sector	464
Total	1 218
Total value at basic price	5 792

Values with reference year 1995 are derived in the same way as for intermediate consumption.

A. Content

Goods covered by item 'others':

None.

B. Calculation method

(1) Specify how this has been calculated.

The method used is linear depreciation of replacement value.

(2) Average economic life of the various fixed assets.

Equipment: 12 years.

Buildings: 25 years.

6.3 Changes in stocks

1. Calculation procedure

The value is the sum of 'stock changes' for cattle, pigs, sheep and goats.

2. Data sources

Output calculations.

3. Level of detail

-

4. Adjustments

-

5. Estimations

-

6. Numerical example

Changes in stocks 1998 (values expressed in milj. SEK):

Stock changes, cattle	58
Stock changes, pigs	5
Stock changes, sheep and goats	0
Total value at basic price	63

Values with reference year 1995 are derived in the same way as for intermediate consumption.

6.4 Capital transfers

1. Calculation procedure

A value is directly estimated.

2. Data sources

Values are fetched from registers over subsidy payments.

3. Level of detail

- Values are fetched separately for each kind of grant.

4. Adjustments

-

5. Estimations

-

6. Numerical example

-

A. Content:

(1) *List of items covered (manualens 3.34.3 och 3.35.4)*

- Investment grants (mostly for environmental reasons).

- Start-up grants to young farmers (to help them finance the acquisition of assets).

(2) *Are there any other 'capital transfers' in your country?*

-

(3) *If so, a concrete scheme!*

-