



# DEFINING THE COST OF PIG PRODUCTION

## EXPLANATORY NOTES

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## Defining the Cost of Pig Production

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# DEFINING COST OF PIG PRODUCTION

## EXPLANATORY GUIDE

### **Introduction**

The *Defining Cost of Pig Production* programme is the combination of a cross industry project involving BPEX, the National Pig Association, Agricultural Consultants, DEFRA and banks. The result is a programme that allows all sector of the industry to calculate and present figures relating to the cost of pig production in an agreed uniform format.

The following booklet provides a simple guide as to how the various costs within a business should be entered onto the *Defining Cost of Pig Production* form and how the results from the form can be used to provide key indices and performance measures.

Information to complete the sheets can be obtained from a number of different sources such as taxation accounts, management accounts, farm business survey forms or other costing programmes. However the programme seeks to provide an agreed format as to how this information should be collated under specific headings and presented.

For further assistance or advice regarding the Defining the Cost of Pig Production programme please contact:

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## Entering data

The *Defining Cost of Pig Production* programme comprises three spreadsheets as follows:

- Set up sheet including details of enterprise mix, tenure and key physical parameters
- Farm data sheet for imputing income and expenditure relating to the pig enterprise
- Summary sheet presenting absolute and per kg pigmeat cost of production and a final net profit statement.

Information is entered onto the sheet in the appropriate cells coloured cream. A help guide has also been built into the workbook to assist the user to complete the sheets.

A concise definitive guide to the costs that should be included under each heading within the programme can be found on page 5 of this booklet.

Data is entered in cream shaded cells.

Totals in grey shaded cells are automatically calculated.

A help guide is provided to assist users input information.

Income	Description	Number	Average Price Per Head	Total Dead Weight	Average Dead Weight	Total £
	Weaning Pig (c. 7kg)	100	10	1000	10	1,000
	Weaners (c. 30 kg)	100	10	2000	20	1,000
	Slaughter pigs	10,000	10	300000	30	100,000
	Breeding boars	200	20			4,000
	Breeding sows	200	20			4,000
	Cull sows	200	20			4,000
	Cull boars	200	20			4,000
	Sundry income					2,000
	<b>Total Income</b>					120,000
Costs	Description	Number	Price			Total
Replacements	Sow Replacements	200	20			4,000
	Boar Replacements	200	20			4,000
	AI for Replacement	200	20			4,000
Variable Costs	Weaner Purchases	200	20			4,000
	Feed					200
	Straw & bedding					300
	Vet & Med					400
	Transport					500
	Power and Heat					600
	Water					700
	Sundries					800
Labour	Employed labour		1	20,000		20,000

## Interpreting the Summary Page

The summary sheet transfers information from the farm data sheet and presents the following key items of information:

**Total Income** – This is a statement of the total income from pig sales from the pig enterprise. It includes income from internal sales of stock and any sundry sales that are attributed to the pig enterprise.

**Total Costs** - This figure comprises all expenditure on replacement stock, variable costs and other overheads and includes items such as internal purchases of homebred breeding stock. It does not include a charge for depreciation.

**Cash Position** – This figure represents the difference between the inflow and outflow of cash relating to the pig enterprise including labour directly employed for the pig enterprise.

**Gross Profit after Depreciation** – This figure represents the profit generated by the enterprise after making an allowance for a depreciation charge on assets related to the pig enterprise

**Final Net Profit** – This figure represents the profitability of the business allowing for the cost of family labour and management input regardless of the actual business structure (i.e. partnership, limited company, or sole trader), and for capital invested in the business.

**Imputed Finance Charges** – This figure represents an estimate of the interest on assets owned in the business such including breeding stock, machinery, buildings and land. This figure can be used to represent a rent and finance value for owner occupier businesses that do not have any borrowings to allow comparison with other businesses which commonly either pay a rent or have some form of borrowing.

## Deriving key financial indicators from the Summary

From the summary page the following key financial terms can be derived as follows:

### 1. Net Trading Profit =

(E) Gross position after depreciation + (F) livestock valuation change

### 2. Enterprise cash breakeven price per kg =

(B) Total costs / (I) kgs pigmeat produced

### 3. Business cash breakeven price per kg =

$$\frac{((B)\text{Total costs} + (F)\text{ Livestock Valuation Change} + (G)\text{Imputed Labour Charges})}{(I)\text{ Kgs pigmeat produced}}$$

### 4. True breakeven price per kg =

$$\frac{((B)\text{Total costs} + (F)\text{ Livestock Val. Change} + (G)\text{Imp. Labour Charges} + (D)\text{ Depreciation})}{(I)\text{ Kgs pigmeat produced}}$$

### 5. Feed Cost as a Percentage of Turnover =

$$\frac{\text{Feed Costs}}{(A)\text{ Total Income}} \times 100$$

### 6. Labour as a Percentage of Turnover =

$$\frac{\text{Labour Costs}}{(A)\text{ Total Income}} \times 100$$

## **Definition of Terms for Income and Expenditure Headings**

The Defining Cost of Pig Production spreadsheet has been designed so that data from different sources can be grouped and presented under cross industry agreed headings to provide an agreed calculation of the cost of pig production. The sources of data may differ i.e. formal accounts, management accounts or farm business survey data; however it should be possible to group the information under the following headings. The definition of the headings and the items grouped under such headings are as follows: -

### **Income**

*Weaning Pig Sales* – Gross income before deductions for levies, haulage and marketing charges from the sales of piglets at the point of weaning (typically 21-28 days c. 5-7 kg per pig)

*Weaner Sales* –Gross income before deductions for levies, haulage and marketing charges from weaner pig sales (typically 11-12 weeks old – c. 30+kg pigs). For breeder finisher units where a separate cost of production figure is being derived for each enterprise, the sale price from the breeding unit and the purchase value of weaners in the finishing unit should be identical.

*Slaughter Pigs* – Gross income from finished pigs before deductions for levies, haulage and marketing charges from all clean pigs sold for slaughter. The gross deadweight entered should include any part condemnation weights.

*Breeding Boars* – Gross income before deductions for levies, haulage and marketing charges from the sale of breeding boars produced by the enterprise. This heading also includes internal sales of boars sold to the breeding enterprise of the same business. (It is important that the sale price entered for internal transfers is the same as the value entered in the boar replacement section).

*Breeding Sows* - Gross income before deductions for levies, haulage and marketing charges from the sale of breeding gilts produced by the enterprise. This heading also includes internal sales of gilts sold to the breeding enterprise of the same business. (It is important that the sale price entered for internal transfers is the same as the value entered in the sow replacement section).

*Culls* – Gross income before deductions for levies, haulage and marketing charges from the sale of sows and boars culled out of the breeding herd. Income from cull sows fattened before sale should be included under the ‘Slaughter Pigs Sales’.

*Sundry Income* – Income from the sale of items related to the pig enterprise. These may include none capital items of equipment, bedding, feed or other equipment purchased by the pig enterprise. Sales such as for pig manure should also be included under this heading where there is a cash transaction. If manure is sold to an arable enterprise in exchange for the purchase of straw from the arable enterprise then the market value of straw should be included under the straw and bedding heading and an equal value entered for the sale of manure under the sundry income heading.

## **Expenditure**

*Sow Replacements* – All expenditure relating to the purchase of breeding gilts and sows should be included under this heading including internal transfers of homebred gilts from the finishing herd. (It is important that the purchase price entered for internal transfers is the same as the value entered in the breeding sow sales section).

*Boar Replacements*– All expenditure relating to the purchase of boars should be included under this heading including internal transfers of home boars from the finishing herd. (It is important that the purchase price entered for internal transfers is the same as the value entered in the breeding boars sales section).

*AI* – For businesses that use artificial insemination, expenditure on semen costs, and royalties should be entered into this section.

*Weaner Purchases* - Expenditure relating to the purchase of weaners into the business should be included under this heading. For breeder/finisher units where a separate cost of production figure is being derived for each enterprise, the purchase value of weaners into the finishing unit should be identical to the sale price from the breeding unit.

*Feed* - This should include all feed used by the pig enterprise and any medication included within the ration. For home mix or liquid feed units, the cost of all straights should be entered in this section or a value per tonnes of the various rations used multiplied by a total tonnage used. Any purchase of feed such as barley and proteins etc., from an arable enterprise within the same business should be purchased by the pig enterprise at the prevailing market rate.

*Straw and Bedding* – All bedding material, straw and shaving purchases. Where straw is purchased from an arable enterprise in exchange for manure, the straw should be valued at the prevailing market price. This value should equal the value for the sale of manure entered under the sundry income heading.

*Vet & Med.*- All veterinary, medicine and assurance inspections costs. Associated equipment such as needles and syringes should also be entered under this heading.

*Transport* – All expenditure on contract transport for the movement of pigs or items relating to the pig enterprise. Imputed values for farm/enterprise haulage **should not** be entered under this section unless they are not recorded elsewhere on the sheet under power and labour costs.

*Power & Heat* – All electricity and gas costs relating to the enterprise.

*Water* – All water costs relating to the enterprise. Where a business sources water from a borehole any extraction licence cost should be entered.

*Sundries* - Expenditure on items including marketing charges, assurance scheme costs, levies, and sundry equipment such as dust masks, spray markers and inkpads.

*Employed labour* –Regular labour employed by the enterprise including P.A.Y.E. and national insurance contributions, pensions and any benefits such as health insurance, or vehicle allowances (not including council tax). Where labour is split between the pig enterprise and other farm enterprises, the labour costs allocated to the pig enterprise should

relate to the proportion of hours spent on the pig enterprise relative to the total number of hours worked on all farm enterprises.

*Casual Labour* – All casual, part time or self-employ labour including P.A.Y.E. and employer national insurance contribution.

*Machinery hire, leasing and repairs* –All machinery repair costs, lease payments, tools and workshop material costs relating to the pig enterprise. Where machinery is split between the pig enterprise and other farm enterprises, the machinery costs allocated to the pig enterprise should relate to the proportion of tractor hours spent on the pig enterprise relative to the total number of hours worked on all farm enterprises.

*Vehicle Tax & Vehicle Insurance* – All vehicle road tax, MOT, and insurance costs relating to the pig enterprise. Where machinery is split between the pig enterprise and other farm enterprises, the vehicle tax, licence and insurance costs allocated to the pig enterprise should relate to the proportion of tractor hours spent on the pig enterprise relative to the total number of hours worked on all farm enterprises.

*Contracting* – All contracting costs (excluding haulage costs that are entered under transport costs) that are charged to the pig enterprise. These may include charges from other farm enterprises for specific activities. In the case of internal farm contract charges, to avoid double counting, it is important that power and labour cost elements of such charges are not also included under the labour and power costs sections for the pig enterprise.

*Fuel & Oil* – All fuel, oil and lubrication costs.

*Council Tax* – Council tax paid by the enterprise including council tax paid on behalf of employees.

*Property Repairs and Maintenance* – Repairs and maintenance costs on all property, buildings, and fixed equipment relating to the pig enterprise.

*Rent* – Rent on buildings and property used by the pig enterprise including rent for the accommodation of employees of the enterprise.

*Interest Payments* – Payments of interest on all forms of borrowing including bank overdrafts, bank and private loans, merchant credit schemes and hire purchase schemes relating to the pig enterprise. Where one bank account relates to the pig and other enterprises, an estimate of the interest rate relating to the pig specific borrowing should be entered.

*Bank Charges* – All bank charges including arrangement fees, life insurance on borrowings, and transaction charges. Where one bank account relates to the pig and other enterprises, an estimate of the bank charges relating to the pig specific transactions or elements of borrowing should be entered.

*Consultancy and Professional Fees* – Accountancy, consultancy, legal and other professional fees. These should be applied proportionally where they relate to a number of enterprises.

*Office Costs* – Telephone, stationary, postage, secretarial, computer and office equipment, and secretarial costs. These should be applied proportionally where they relate to a number of enterprises rather than specifically to the pig enterprise.

*General Insurance* – These should be applied proportionally where they relate to a number of enterprises rather than specifically to the pig enterprise.

*Miscellaneous* – All other costs relating to the pig enterprise.

## **Depreciation**

*Buildings and Fixed Equipment* – The depreciation charge for all buildings and fixed equipment should be taken from the most recent set of accounts for the pig enterprise.

*Machinery* - The depreciation charge for all vehicles and machinery should be taken from the most recent set of accounts for the pig enterprise.

## **Livestock Valuations**

*Weaning pigs* – Enter the closing valuation less the opening valuation of weaning pigs (number x current market value at the beginning and end of the period).

*Weaners* - Enter the closing valuation less the opening valuation of weaner pigs (number x current market value at the beginning and end of the period).

*Breeding Boars* - Enter the closing valuation less the opening valuation of breeding boars (number x current market value at the beginning and end of the period).

*Breeding Sows* - Enter the closing valuation less the opening valuation of breeding sows (number x current market value at the beginning and end of the period).

## **Imputed Costs**

*Family Labour* – Enter the number of family members directly employed on the pig enterprise and an imputed cost based on their estimated salary or partners drawings from the business. Where family labour is split between the pig enterprise and other farm enterprises, the cost allocated to the pig enterprise should relate to the proportion of hours spent on the pig enterprise relative to the total number of hours worked on all farm enterprises.

*Family Management Time* – Enter the total number of hours of family management time employed on the pig enterprise.

*Imputed Finance Costs* – Enter the approximate value of all major assets related to the pig enterprise such as breeding stock, machinery, land and buildings. In the interest rate box enter the prevailing interest rate.