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BASIC POINTS FOR UNIT-COST CALCULATIONS

"Unit costs" as meant here are integral costs, that is to say: they deal with the total process of production. Marginal calculations are left out of consideration. The notion "unit costs" may be defined as: "the total amount of sacrifices, expressed in money, which are required for the production of a given quantity of a product".

The following problems arise when calculating the cost per unit:

- a. normalization of costs and returns,
- b. distribution of costs among several products and items,
- c. the evaluation of means of production,
- d. the remuneration of entrepreneurship and the determination of prices to farmers.

## a. Normalization of costs and returns

From one year to another circumstances are different with regard to costs and returns. In setting forward prices, cost and return calculations are based on <u>normal</u> costs and <u>normal</u> yields. In other words calculations are made in such a way that they are based on quantities of productive means, which are required under normal production conditions for obtaining a normal yield. The framework of such a cost-calculation is derived from practical farming conditions. Observations over a long period constitute the basis for determining abovementioned normal quantities. It is not justified in taking the average of a number of years. Changes in production techniques take place regularly and they influence costs as well as returns. The adaptation of empirical data to normal conditions is called normalization.

The cost per unit of a product therefore can be defined as the sum of the money sacrifices which are technically needed and economically inevitable for the production of a normal quantity of product under normal conditions. The requirement of "technical necessity" and "economic inevitability" is taken into account by collecting empirical data of only well-managed farms.

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## b. The distribution of costs among several products.

It is not always possible to determine easily which factors of production are used for one product and which for another. Often the same productive factors produce several different products in a rather fixed combination. Examples of such joint products are grains and straw, milk and meat, eggs and poultry.

In all of these cases a direct distribution of costs among each product separately is not possible and hence a different procedure must be followed.

In practice the distribution of costs is handled in one of two ways:

First it is necessary to distinguish between:

- (1) direct costs in which case no particular problems arise,
- (2) indirect costs spent for a combination of products. These latter costs can be distributed:
- (a) directly without intermediate means,
- (b) indirectly, assisted by intermediate means, called "spots of outlay".

The total costs of a certain combination of products are oharged initially partially to the products and partially to a limited number of "spots of outlay". A spot of outlay represents the costs of a factor of production or several factors of production in a fixed combination (combine, horses, tractor plus fuel and tractordriver etc.) providing services to objects of calculation (final products). At first, costs are determined per spot of outlay, next these costs are distributed among the objects of calculation according to a special scheme.

## c. The problem of monetary appraisal of productive means.

In calculating cost per unit the factors of production are assigned money values. Factors which are purchased annually can simply be valued at the real purchase price.

However many factors of production are not purchased a.o.:

- (1) those produced on the farm, such as seed, feed and manure,
- (2) those paid for in the past and stored for future use, such as capital invested in inventory, buildings, etc..
- (3) those inherent to the farmer and his family, such as the

manual labour performed by himself and his family.

The only acceptable criterion for appraisal in such cases is the highest alternative utility value, i.e. the value when used on another farm or in another production process. This alternative value therefore is, when possible, determined by the market price. Milk, fed to calves, is appraised at the price of milk delivered at the factory, the unpaid labour of the farmer's family at the current wage-rate, augmented by the usual percentage of social security charges. More difficult is the problem if no clear price setting takes place. In such cases the value of the productive means is determined by the value of the marginal factor. This value in turn is determined by the way in which it is put to use. For example if some beet tops are ploughed under, then all beet tops are appraised at the manure value. If they are all fed to livestock, then the feed value is the basis of appraisal. Hence marginal costs and marginal returns are the leading principles of evaluation where no market price exists.

d. Remuneration for manual and managerial labour of the farmer.

In the calculation of cost per unit a certain amount is inserted as remuneration for the manual labour of the farmer. This amount is in line with the wage of farm labourers. Except this a reward has to be fixed for the managerial labour of the farmer. In the calculation of the unit-costs a managerial salary has been included, according to an agreement between the Government and the Farmers' Organization.

LANDBOUW-ECONOMISCH INSTITUUT

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