7

Farm Management Information: Analysis and Interpretation

OBJECTIVES

- **To put a few provisos for the analysis and interpretation of farm management information into perspective.**
- **To explain the calculation and uses of solvency, liquidity and profitability in a farming enterprise.**
- **To explain certain physical efficiency measures that can be used in a farming enterprise.**
- **To explain branch analyses in the farming situation.**
- **To point out the dangers involved in the wrong interpretation of farm management information and to discuss them.**
- **To issue a warning about over-estimating the value of farming analyses.**

In previous chapters the importance of farm management information was emphasised and the collection and arrangement of information were discussed. In this chapter attention is paid to the analysis and interpretation of the information since the mere collection of information has little value for decision-making purposes. Information must also be analysed and interpreted correctly before it can make a meaningful contribution to decision-making — and therefore better management.

IMPORTANT ASPECTS IN ANALYSIS AND INTERPRETATION

The analysis and interpretation of farm management information (farming results) are not easy and usually demand special knowledge and skills. It is also not the intention here to deal with the extensive theory of analysis methods or the theory regarding the physical and financial ratios that can be used in the enterprise. An

attempt will rather be made to offer analysis guidelines that can be applied in the practical situation on the farm.

It should also be mentioned that the analysis and interpretation of farming results for management or tax purposes are essentially different and should not be confused with one another. In this chapter the emphasis is on analysis and interpretation for *management purposes*.

It must also be noted that the analysis process consists of two facets, namely comparative and trend analyses. *Comparative analyses* are usually made within the same year to compare different production branches within the enterprise with one another, or the one farming enterprise with other farming enterprises or other business undertakings. In *trend analyses* the results of the same enterprise are compared over a period so as to determine a trend.

A last aspect that arises in analysis and interpretation, is the comparability of the management information (farming results). To make a correct analysis and arrive at a meaningful interpretation of farm management information, the information must be collected and grouped according to recognised norms (see chapters 5 and 6). The management information of different farming enterprise or different branches in the same enterprise must, in other words, be comparable as regards contents and composition, before it can be used for analysis or comparison purposes.

SUMMARY OF FARM MANAGEMENT INFORMATION

The farm management information discussed in chapter 6 serves as a basis for some of the analyses done in this chapter. For this purpose the management information of chapter 6 is summarised in an abbreviated balance sheet and income statement.

N. Farmer
Abbreviated balance sheet as at 28 February 1986

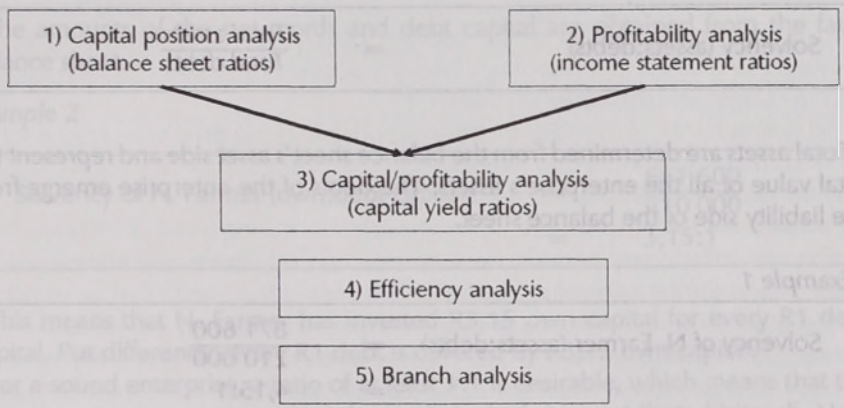
Liabilities	1985	1986	Assets	1985	1986
Current liabilities	45 000	50 000	Current assets	60 000	137 200
Long-term liabilities	180 000	160 000	Investments	30 000	49 000
Total liabilities	225 000	210 000	Movable assets	100 000	78 400
Net worth	525 000	661 600	Fixed assets	560 000	607 000
Total liabilities + net worth	750 000	871 600	Total assets	750 000	871 600
			Value of leasehold land	50 000	55 000
			Total capital employed	800 000	926 600

N. Farmer
Abbreviated income statement for the period 1 March 1985 to 28 February 1986

Gross production value (GPV)	257 650
Less: Production,marketing and administrative costs	103 550
Net farm income (NFI)	154 100
Less: Financing costs	25 000
Farm profit (FP)	129 100

Although the above two statements give an overall view of the enterprise, this is inadequate. To draw logical conclusions, this information must be analysed further. Figure 7.1 gives a schematic representation of how it can be done.

Figure 7.1 Categories of farm management analyses



CAPITAL POSITION ANALYSIS

The main purpose of capital position analysis is to determine whether the enterprise —

- will be able to pay all debts if all assets should be sold (the solvency ratio); and
- is able to pay current debt commitments from current income (the liquidity ratio).

Solvency ratio

One of the most important analyses that can be made of an enterprise's capital position, is its solvency ratio. *This indicates the extent to which the value of the assets of the enterprise exceed the extent of the debts.*

The solvency ratio gives an indication of whether the enterprise, on cessation of activities, will be able to meet all outstanding debt commitments if the assets are sold. Credit providers are usually very interested in this ratio since it gives them an indication of how much risk is attached to their investment.

Solvency is measured in two ways, namely the ratio of total assets to total debt, and of own to debt capital.

Ratio between total assets and total liabilities (debts)

$$\text{Solvency (assets:debts)} = \frac{\textit{Total assets}}{\textit{Total debts}}$$

Total assets are determined from the balance sheet's asset side and represent the total value of all the enterprise's assets. The debts of the enterprise emerge from the liability side of the balance sheet.

Example 1

$$\text{Solvency of N. Farmer (assets:debts)} = \frac{871\,600}{210\,000} = 4{,}15:1$$

In the case of N. Farmer the value of his assets is 4,15 times that of his liabilities. Put differently, for every R4,15 invested in the enterprise, R1,00 debt capital was used. The bigger the ratio, the more safely the enterprise is financed because the better it will be able to survive financial setbacks. A ratio of 1:1, for example, means that the assets are equal to the debts and that its net worth is, in fact, nil. Although the enterprise is then still solvent, it is not a safe ratio because it is on the brink of insolvency and has no margin of resistance. A small decrease in the assets or even a decline in asset values without a corresponding decrease in debts, would mean technical insolvency. The same would apply in the reverse position, namely an increase in debts without a similar increase in assets.

What a safe ratio for an enterprise should be, depends on many factors, including the following: the *type of enterprise* (how much risk is the enterprise subjected to?); the *nature of the assets* (would they be easy to sell at balance sheet values?); the *nature of the debts* (who does the enterprise owe money to?); etc. In general a ratio of at least 2:1 assets to liabilities is regarded as fairly safe.

In addition to the actual size of the ratio, attention should also be paid to its trend. An increasing ratio based on static balance sheet values, for example indicates an improvement in the financial structure of the enterprise because the assets are improving in relation to the debts.

The second way in which solvency can be measured is to relate the own capital of the enterprise to its debts.

Ratio between own capital (net worth) and debt capital

$$\text{Solvency (Own:debt capital)} = \frac{\textit{Own capital (net worth)}}{\textit{Debts (debt capital)}}$$

The amounts of the net worth and debt capital are obtained from the farm balance sheet.

Example 2

$$\text{Solvency of N. Farmer (own:debt capital)} = \frac{661\,600}{210\,000} = 3{,}15:1$$

This means that N. Farmer has invested R3,15 own capital for every R1 debt capital. Put differently, every R1 debt is covered by R3,15 own capital.

For a sound enterprise, a ratio of at least 1:1 is desirable, which means that the farmer must not owe more than the capital which he contributed himself. Note that the same considerations that were valid in the previous ratio also apply here.

The liquidity ratio of a farming enterprise

Liquidity indicates the ability of a farming enterprise to meet its current short-term commitments such as production costs, interest, debts and bond repayments without having to stop or curtail farming activities.

Like solvency calculations, liquidity calculations can be made from data contained in the balance sheet. For this purpose the current assets are related to the current liabilities (see chapter 6 for an explanation of these concepts).

The liquidity ratio is then calculated as follows:

$$\text{Liquidity ratio} = \frac{\textit{Current assets}}{\textit{Current liabilities}}$$

Example 3

$$\text{Liquidity ratio of N. Farmer} = \frac{137\ 200}{50\ 000} = 2{,}7:1$$

This means that N. Farmer has R2,70 current assets for each R1 current liabilities. Conservative banking practice demands a ratio of at least 2:1.

Since there may be substantial fluctuations in current assets and current liabilities of the enterprise during any one year, and also because assets are not always easy to convert into cash (e.g. crops on lands), it would be risky to take only the existing ratio as a reliable criterion of the liquidity position of an enterprise. It is also necessary to monitor an enterprise's liquidity position by means of a cash budget. Such a budget was discussed in chapter 4.

The maintenance of liquidity in the enterprise is of cardinal importance for its survival and growth and it may happen that enterprises that are technically solvent may be forced into liquidation because of liquidity problems.

It is relatively easier to survive liquidity problems during times of inflation than during non-inflationary periods, because one can rely more and more on asset appreciation during inflationary periods. This means that credit can be obtained on the grounds of increasing asset values to surmount liquidity problems without affecting the solvency ratio. If, however, the assets do not continuously increase in value, or loans (credit) become tight, chronic liquidity problems could lead to insolvency of the enterprise.

PROFITABILITY ANALYSES

The purpose of profitability analyses is to relate the "profit" realised during a specific financial period to the costs involved.

The profit position of the enterprise has already been calculated with the aid of the income and capital reconciliation statement and was expressed in the net farm income and farm profit. As such, however, these profit figures have little value as a criterion of financial performance. They must first be related with the costs, the

capital or the physical units that were used to produce that "profit" to be of any value as a criterion. The relationship between profit and capital and between profit and physical units will be discussed in the next two sections.

The ratio between certain cost groups and the turnover, as well as the allocation of the farm profit to the different factors that were responsible for the profit, are important here.

Cost/profit : turnover ratios

The following five cost/profit : turnover ratios are meaningful in the farming situation:

- Labour costs : Gross production value (GPV)
- Mechanisation costs : Gross production value (GPV)
- Cost of production supplies : Gross production value (GPV)
- Total production, marketing and administrative costs : Gross production value (GPV)
- Interest and rental costs : Net farm income (NFI)

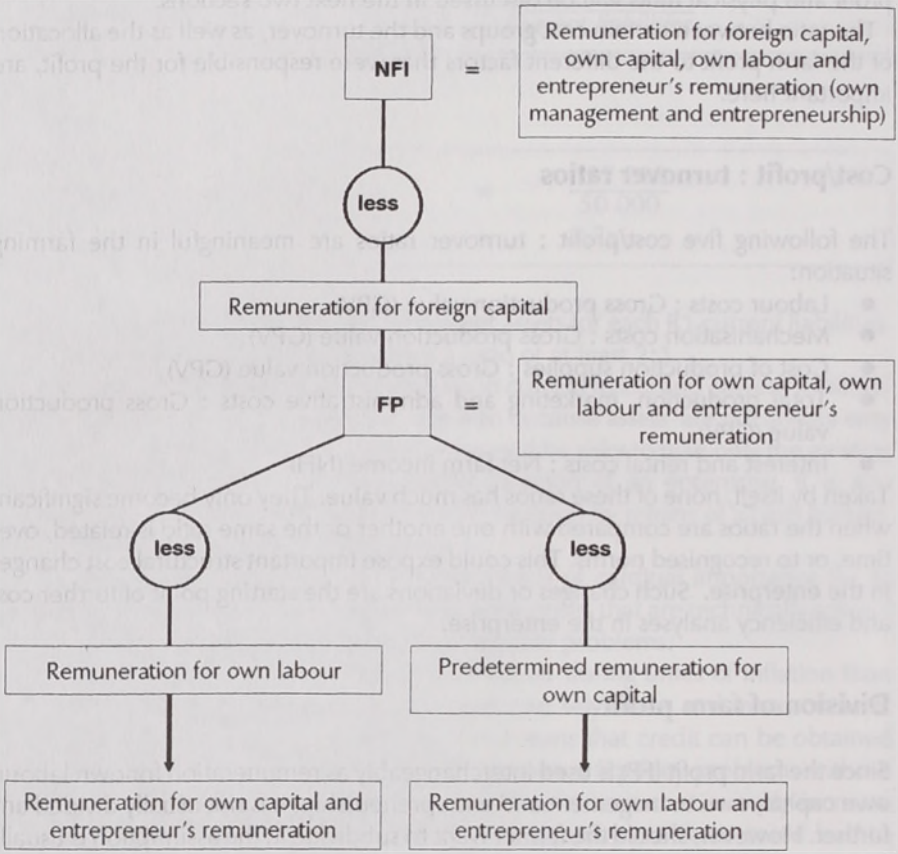
Taken by itself, none of these ratios has much value. They only become significant when the ratios are compared with one another or the same ratio is related, over time, or to recognised norms. This could expose important structural cost changes in the enterprise. Such changes or deviations are the starting point of further cost and efficiency analyses in the enterprise.

Division of farm profit

Since the farm profit (FP) is used interchangeably as remuneration for own labour, own capital, own management and entrepreneurship, it is not usually divided any further. However, should the farmer *want* to subdivide it, the assumption is usually that no own labour or own management remuneration was recovered before the calculation of the FP. To give a meaningful explanation of the division of FP, the division is followed from NFI level, and entrepreneur's remuneration is equated with the remuneration for own management and entrepreneurship.

It is clear from figure 7.2 that there are two methods of analysis that can be followed after FP. According to the first method remuneration for own labour is subtracted from the FP and the rest is remuneration for the farmer's own capital and entrepreneur's remuneration. According to the second method — illustrated in the right-hand column of figure 7.2 — remuneration for own capital is taken into account at a predetermined rate and the rest becomes remuneration for the farmer's own labour and entrepreneur's remuneration.

Figure 7.2 Division of farm profit



CAPITAL/PROFITABILITY ANALYSES

The purpose of capital/profitability analyses is to calculate the rate of return of the farming enterprise and the rate of return on own capital. These ratios can, for example be used in financing decisions in the enterprise.

In the two previous analyses the profitability and capital position analyses were discussed separately. In this section the two are dealt with jointly and the data of

the income statement are related to those of the balance sheet. In this way the rate of return ratio is calculated and from this one can determines what interest was earned on the capital invested. An enterprise with a smaller NFI might, for example, perform better in terms of rate of return than an enterprise with a much bigger NFI, as can be seen in table 7.1.

Table 7.1 Comparison of profitability between enterprises A and B

Enterprise	NFI (R)	Capital invested in farm (R)	Interest on capital or rate of return	NFI/R100 capital
A	60 000	500 000	$\frac{60}{500}$x100=12,0%	R12,00
B	90 000	900 000	$\frac{90}{900}$x100=10%	R10,00

From table 7.1 it is evident that enterprise A with a smaller profit figure than B earns a higher interest on capital and therefore has a higher rate of return ratio than B. The conclusion that can be drawn from this is that "profit" as such is not an important criterion for achievement — it must first be related to the capital.

The following two rate of return ratios are important:

- The rate of return of the enterprise as a whole, also known as the rate of return on total capital; and
- The rate of return on own capital.

Rate of return on total capital (NFI/R100 capital)

The rate of return on total capital is calculated by expressing the net farm income (NFI) as a percentage of the average total capital employed in the enterprise during a specific period.

$$\text{Rate of return on total capital} = \frac{\textit{Net farm income}}{\textit{Ave. total capital employed}} \times \frac{100}{1}$$

$$\therefore EP = \frac{NFI}{TC} \times \frac{100}{1}$$

Total capital employed = Assets of the enterprise + value of leasehold land + value of equipment leased + value of land cultivated on a share basis

$$\text{Average capital} = \frac{\text{Capital at beginning of period} + \text{Capital at end of period}}{2}$$

See also the remarks on p 163 - 4 for a further explanation of *total average capital*.

Example 4

Rate of return on total capital of N. Farmer (see p. 154 -155)

$$\text{NFI} = \text{R}154\,100$$

$$\text{Average total capital} = \frac{R800\,000 + R926\,600}{2}$$

$$= \text{R}863\,300$$

$$\text{Rate of return on total capital} = \frac{NFI}{Average\ TC} \times \frac{100}{1}$$

$$= \frac{R154\,100 \times 100}{863\,300}$$

$$= 17{,}9\%$$

Rate of return on own capital

Rate of return on own capital is calculated by expressing the farm profit as a percentage of the average own capital (net worth) used in the enterprise during the period under review. This indicates how much interest the farmer earns on his own money invested in the enterprise.

$$\text{Rate of return on own capital} = \frac{Farm\ profit\ (FP)}{Average\ net\ worth^{*}} \times \frac{100}{1}$$

$$\text{Profitability of own capital} = \frac{FP}{NW} \times \frac{100}{1}$$

* See remarks on p 163 - 4.

Example 5

N. Farmer's (p.154 - 155) rate of return on own capital

$$= \frac{FP}{Average\ net\ worth} \times \frac{100}{1}$$

$$= \frac{129\,100}{{}^{1}/_{2}(661\,600 + 525\,000)} \times \frac{100}{1}$$

$$= \frac{129\,100}{593\,300} \times \frac{100}{1}$$

$$= 21{,}8\%$$

From the two rate of return ratios of N. Farmer, it appears that his rate of return on own capital is higher than the rate of return on total capital. This indicates that he pays less than 17,9% for his foreign capital. The reason for this can be explained as follows: if the return on foreign capital in the enterprise is higher than the interest and rent paid for it, this "profit" falls to own capital, resulting in a rate of return on own capital that is higher than the rate of return on total capital. The opposite situation applies where the interest and rent percentage is higher than the rate of return on total capital. Apart from the above comparison, the rate of return, ratios can also be used for various other comparisions, including the following:

- A comparison with those of previous years
- A comparison with other business enterprises
- A comparison in terms of alternative investments
- A comparison between different farming enterprises.

A comparison between the rate of return on total capital and the rate of return on own capital for the same period is, however, probably the most important because it shows whether more is paid for borrowed/rented capital than it is earning in the enterprise. This phenomenon is known as financial leverage and although it was briefly explained in N. Farmer's rate of return ratios, it will be discussed more fully in chapter 8.

Remarks

Before dropping the subject of rate of return, it is necessary to give the following explanations.

AVERAGE TOTAL CAPITAL AND AVERAGE NET WORTH

As stated before, rate of return is calculated on the capital employed during the period. This implies that both the initial and the end value of the capital is under discussion, and not only the capital at the end of the period. As is the case with the profit which is not only made at the end of the period, but which was generated bit by bit during the entire period, the extent of the capital could also fluctuate during the period. However, since it is impractical to monitor the fluctuations from day to day, the average total capital is used to calculate the rate of return on total capital. It is calculated as follows:

$$\frac{1}{2}\text{ (initial capital + end capital)}$$

The same argument also applies to the net worth and for this reason the average net worth is used in the calculation of the rate of return on own capital. This average is obtained as follows:

$$\tfrac{1}{2}\text{ (initial net worth + end net worth)}$$

INCLUSION OF RENTED ASSETS

A second aspect that needs clarification is the *total capital* employed in the enterprise. This means that the *value* of leased assets such as leased land and equipment such as tractors, implements and vehicles form part of the total capital employed in the enterprise. Leased equipment, however, is normally included in the farm balance sheet (see chapter 6) and thus automatically forms part of the farm assets. Leased land and land cultivated on a share basis are not, however, included in the farm balance sheet and the estimated market value of such land should be added to the farm assets to obtain the total capital.

The reason why the value of leased assets is regarded as farming capital is obvious. These assets were used in the production process and a certain interest yield (profit) was earned with them. If this is not added, the farmer who leases all assets will have a tremendously high rate of return because the denominator in such a case is zero, which emerges from the following:

$$\boxed{\frac{R100\,000\ (NFI)}{0(capital)} = \infty}$$

An exception to this rule is, however, made where the assets are leased for a period of less than a year. Strictly speaking the lease period should then be taken into account and the asset value related to this. If, for example, the asset is leased for three months and the profitability is calculated for a year, only a quarter of the asset value should be taken into account. In practice, however, it is difficult to apply this rule at all times. For example, should the proportional part of the value of a lorry rented only for two or three trips be included when calculating profitability? In such instances the analyst should use his own discretion and insight to decide whether the inclusion or exclusion of the asset will have any real effect on the results. The general rule, however, is to add leased equipment that does not already form part of the balance sheet and also all leased land and land that is cultivated on a share basis. The total capital of an enterprise is therefore compiled as follows:

Total capital employed = value of farm assets + value of leased equipment + value of leased land and land cultivated on a share basis.

BOOK OR MARKET VALUES

Farming assets can be valued at market or book values and the question arises: which valuation should be used for calculating rate of return? If the same enterprise is compared over time, it is recommended that book values be used. Land values should, however, be revised every three to five years and, using the relevant information, be adjusted in the balance sheet. However, where farming enterprises are compared with other business enterprises or the alternative rate of return on capital is investigated, market values of assets should be used.

EFFICIENCY ANALYSES

Various physical efficiency analyses can be applied to the farming situation, depending on the size of the enterprise, type of production branches and the purpose of the analysis. The efficiency measures discussed here can be used in different ways for purposes of comparison. The most important of these comparisons are —

- of the same farming enterprise over a period (trend analyses)
- with other similar farming enterprises (comparative analyses)
- with regional, country or production-branch averages; and
- with recognised physical norms where such norms exist and are adapted to the unique circumstances of the specific enterprise.

Labour efficiency

A few labour efficiency measures may be used jointly or separately to reflect the productivity of labour on a farm. The most important of these are the following:

- The total physical yield of a specific branch of production is divided by the labour used to generate the yield. The result is then, for example x kg maize per man day or hour,or x litres milk per man day per year.
- The labour force used to cultivate a certain area is divided by the cultivated area. The result is then x man days or hours per ha under maize or wheat.
- The available labour force can be compared with the theoretically required labour force to achieve a certain yield. The labour theoretically required is obtained from published statistics and results achieved on experimental farms.
- The gross production value per R100 labour costs can be calculated. The calculation is as follows:

$$\frac{GFP}{Labour\ costs} \times \frac{100}{1}$$

The limitations of the above measures are obvious. The degree of mechanisation, soil fertility, fertiliser applied, climatic conditions, prices, etc., are not accounted for in the measures. A relatively high or low labour efficiency obtained with these criteria can therefore not be attributed to the labour only. Nevertheless, the use of these criteria could identify strong and weak points in the enterprise.

Efficiency of equipment

The efficiency of equipment is generally measured by the *cost of equipment per ha cultivated*. One of the most important cost items that could affect farm profit is the cost involved in owning and using mechanical equipment such as vehicles, machinery and implements. The cost of mechanisation is one of the items that can be minimised by good management and it is therefore necessary to calculate and control these costs very carefully.

Basically the costs involved in mechanical equipment can be divided into two main groups, namely fixed costs and operating costs (variable costs). *Fixed costs* consist of depreciation, tax and licences insurance, interest and shelter (storage). *Operating costs* are represented by fuel, lubricants, maintenance, repairs and labour.

To determine equipment efficiency, only the mechanisation costs that are directly related to the cultivation of the land are taken into account. Efficiency can then be calculated as follows:

$$\frac{\textit{Total cost of equipment}}{\textit{Total area cultivated}}$$

Efficiency of crop production

The simplest measure — and probably the one used most often — is *the average physical yield per unit*. The result could then be x ton grain per ha cultivated or x kg fruit per bearing fruit tree.

Efficiency of livestock production

Various measures can be applied, including the following:

- Efficiency could be expressed in *physical terms*, for example litre milk per dairy cow, lambing or calving percentage, area of fodder crops per large stock unit (LSU), veld grazing per grazing LSU or number of LSU per ha farm.

- *Income from livestock per R100 feed costs.*

Miscellaneous efficiency measures

A number of additional efficiency measures that may also be used, include the following:

- Net farm income per ha farm
- Gross production value per ha farm
- Fixed improvement value per ha farm
- Livestock value per ha farm
- Movable asset value per ha farm
- Total investment per ha farm.

Summary of efficiency analyses

Finally it must be emphasised that conclusions reached as a result of applying these measures, must be carefully considered. Do not attach too much value to the results of a single measure, since every measure could have serious limitations. Application of the measures must be seen as a method to identify possible problems and weaknesses in the enterprise. Should this happen, further in-depth analyses should be made to find out where improvements can be made.

BRANCH ANALYSES IN A FARMING ENTERPRISE AND THE DANGERS OF INCORRECT INTERPRETATION

Apart from the above analyses, one of the most important analyses which the farmer should make is the analysis and comparison of the different production branches on his farm. This is done to determine the profitability of the branches and to compare them. Although such comparisons are valuable for the farmer, they are not so easy to carry out. The reason is that it is difficult to decide how and in what way certain cost items must be allocated to the different branches. For example, what part of the farmer's vehicle costs must be allocated to the maize, cattle or sheep branch?

This problem can be overcome in two ways. *Firstly,* only *directly allocatable variable costs* can be allocated to different branches and all the non-directly allocatable variable and fixed costs can be kept separate. This would make it possible to calculate the gross margin for each branch and it will be possible to see which branch makes the biggest contribution to the non-directly allocatable costs.

The following broad classification serves as an example of costs that are usually regarded as *directly* and *non-directly* allocatable costs.

Directly allocatable costs

- Seed
- Fertilisers
- Spraying materials
- Crop insurance
- Packing material
- Marketing costs
- Contract work for transport, spraying, combining, etc.
- Stock remedies
- Stockfeed
- Casual labourers
- Irrigation water per crop.

Non-directly allocatable costs

- Cost of permanent labourers: salaries, wages, bonuses, rations, medical costs, etc.
- Mechanisation costs such as fuel, maintenance and repairs, insurance, licence fees and depreciation.
- Costs involved in fixed improvements such as depreciation, maintenance and repairs.
- General expenses such as bank costs, interest, membership fees, electricity, telephone and travelling expenses.

Since the gross-margin method can give a distorted image in cases where there are major differences between branches as regards capital investment, a *second method* is followed, where all possible allocatable costs are divided and allocated on some basis or other. *Possibly* allocatable costs include those costs that can be meaningfully and practically allocated. The following can be used as criteria for division:

- The number of man hours per ha or branch, as can be obtained from detailed records;
- The percentage allocatable variable costs per branch or ha;
- The number of permanent labourers per branch;
- The percentage of fixed capital invested per branch; or
- Any other meaningful basis that can be made applicable to the situation.

A serious word of warning must, however, be issued, namely that a branch to which both directly and non-directly allocatable costs have been allocated, must

not be assessed only according to its isolated profit or loss figures. A branch must be assessed within the context of the total enterprise and in comparison with other related branches. If this is not done, serious errors could occur when interpreting the information.

For example, a farmer who has a crop and a dairy branch could find that the dairy branch shows a loss once all directly and non-directly allocatable costs of the enterprise have been allocated to these two branches, while the enterprise as a whole continues to show a profit.

At first glance it seems as if such a farmer would be better off (the enterprise as a whole would show a bigger profit) if he abandons the dairy branch. This might be the case, but it is not necessarily so. Abandoning the dairy branch will not always mean that all the fixed costs allocated to it (costs concerning permanent labour, depreciation, etc.) will, in fact, be saved. On the contrary, it is extremely unlikely that this will ever be the case. Abandoning the dairy branch will therefore not *necessarily* bring about an increase in total profit.

When branch analyses are done a branch of production that shows a loss after both directly and non-directly allocatable costs have been allocated to it, must not be summarily abandoned.

The best way to test possible changes is to compile budgets. This will make it possible to ascertain whether better use could be made of the resource(s) concerned. However, the procedure is to start with a branch analysis. If the analysis identifies shortcomings in certain branches, such shortcomings need further investigation, and subsequently the planned changes must be tested by means of a complete budget system.

In the dairy example the dairy was found to operate at a loss; but there was no indication of why this was the case. It could have been for one of the following reasons:

- Too low production;
- Too high variable costs; or
- Too high fixed costs.

The farmer must first investigate his dairy, using the above three guidelines, and compare his findings with the standards of other farmers or regional averages. If he is satisfied that his dairy branch compares well with others, he could investigate better use of his resources by means of other branches of farming. If, however, his dairy compares poorly with the standards, he must seek out the faults and try to rectify them.

A WORD OF WARNING

Before ending the discussion on the analysis and interpretation of farm management information, it is again necessary to issue another serious warning. Many incorrect conclusions and wrong decisions can result from correct information if the following aspects are not also considered:

- Circumstances such as market and production conditions may change so much within a year that a branch that was the most profitable this year, may be the least profitable next year.

- One branch, although not very profitable, may contribute to *higher* profitability of another branch on the farm or to more complete use of the waste or by-products of another branch - waste or by-products that would otherwise be lost.

- Certain fixed-cost items of a specific branch cannot be saved if the branch is abandoned. This may mean that the branch may have to be continued even though it may be operating at a loss, because it contributes to an increase in total profit.

- In the farming situation analyses must be considered over the long term. It is, however, difficult to lay down fixed guidelines about the exact term because this depends on so many different factors. For example, the production cycle of fruit differs significantly from that of vegetables, which is why the analyses must be seen within the context of the specific production cycle. Experience indicates that many farmers tend to switch from one production branch to another too quickly. In many cases they decide on these changes without making the necessary analyses, while in other cases the term of analysis is too short to allow for meaningful conclusions. Guard against both these errors.

- Reliable physical and financial norms against which own analyses can be evaluated are not yet readily available in the RSA. Such norms would naturally make an important contribution towards assessing individual performances. The norms that *are* available must be approached with caution and the method of analysis used for creating the norms must be investigated before using them as criteria.

- Finally, the value of analyses must not be under-estimated, but also not be over-estimated. Analyses are but one of the inputs that contribute towards

making meaningful decisions in farm management. These analyses must be backed by a good budget system and sound judgement. Only then will it be possible to make decisions that have a good chance of success.

SUMMARY

This chapter dealt with the analysis and interpretation of farm management information. The most important analyses for farm management purposes can be divided into the following five categories:

- Capital position
- Profitability
- Capital/profitability
- Efficiency
- Branches

What is important in analyses is that they must be based on correct information and a logical grouping of information. There must not be too much emphasis on the analysis of information, since analyses must be interpreted with insight and judgement and be backed by a sound budget system. Experience has taught that the benefits that can be derived from and the use that can be made of analyses justify the time and trouble involved.