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OPERATIONAL ACCOUNTING FOR FARM MANAGEMENT

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The accounting system of the Farm Management Service Laboratory of Western Australia is discussed. As a point of reference it uses the system approved by the National Workshop on Standardization of Terminology and Procedures in Farm Management Accounting in Australia. The Laboratory's system is expressly designed to provide a continuous flow of information to the farmer for his control, understanding and evaluation, planning and budgeting, and enhancing credit-worthiness.

Growing realization of the need for managerial accounting for Australian farmers led to the National Workshop on Standardization of Terminology and Procedures in Farm Management Accounting, which was sponsored by the Australian Agricultural Economics Society and held at the University of New England in August, 1966.[1] This Workshop used as its basic text the Queensland Report on *Accounting and Planning for Farm Management*[2] and approved it as a basis for farm management accounting in Australia.

The Queensland Report, and the National Workshop with its chief recommendation to form the Australian Committee for Coding Rural Accounts, together may be seen as culminating a line of thought which has a close parallel in New Zealand. In retrospect the start of this line of thought is marked in Australia by the publication in 1961 of *The Principles and Practices of Farm Management Accounting* by C. A. Mallyon,[3] and in New Zealand by the *1961 Report on Farm Accounting* published in the same year by the New Zealand Society of Accountants.[4] Subsequently both books have been revised and a host of papers published.[5]

The Farm Management Service Laboratory of Western Australia was established at the beginning of 1967.[6] The Laboratory operates an

[1] A brief account of the National Workshop is given by Dillon, J. L., *et al.*, Short report on National Workshop on farm accounting, *Aust. J. Agric. Econ.*, Vol. 11, No. 1, June 1967, pp. 95-97. A full report of the National Workshop is given in *Farm Management Accounting: A Commentary*, Professional Farm Management Guidebook No. 4, Univ. of New England, 1967.

[2] Burns, E. O., *et al, Accounting and Planning for Farm Management*, Q'ld. Dept. of Primary Industries, Brisbane, 1966 (Hereafter referred to as the *Queensland Report*).

[3] Mallyon, C. A., *The Principles and Practices of Farm Management Accounting*, Law Book Co., Sydney, 1st ed., 1961.

[4] New Zealand Society of Accountants, *1961 Research Report on Farm Accounting*, Wellington, 1961.

[5] A bibliography of relevant books and articles to 1966 has been compiled by R. G. Shoobridge in *Farm Management Accounting: A Commentary, op. cit.*, pp. 46-54.

[6] A description of the services of the laboratory is given in Mauldon R. G., Schapper, H. P., and Treloar, D. W. G., *The Farm Management Service Laboratory of Western Australia*, Univ. of Western Australia, 1968. The present article discusses the Laboratory's system as it stands at the time of writing, June 1968.

accounting system within its Managerial Information Service. Now entering its third year of operation, the Laboratory's accounting system was designed solely to meet the needs of farmers as business managers for useful, least cost information. To be useful such information must be timely, relevant and accurate. These are the criteria which were used in designing the Laboratory's system.[7] However, the Laboratory's accounting system is part of the general development which has been taking place in managerial accounting for Australian farmers, though it differs in major respects from the system proposed in the Queensland Report and adopted, with modifications, by the National Workshop. It is the purpose of this article to discuss the approach of the Laboratory's operating system in relation to recommended accounting practice. The Queensland Report and the National Workshop represent the most recent recommended accounting practice for farm management. While they are the point of departure for this discussion of the Laboratory's system, full acknowledgement is made of their contribution to the rapidly developing practice of farm management accounting in Australia.

Usefulness of Accounting Information for Management

Accounting information is historical. The relevance of the past for the future is least clearly defined where all the outcomes of past actions have been terminated, and all the actions which will result in future outcomes are yet to be initiated. In such a case the historical problem is completely closed and the hypothetical problem is completely open, and the usefulness of accounting information to management is limited. The more the historical and hypothetical problems merge, as they do in protracted current processes, the greater will be the opportunities for using accounting information for managerial control.

Yet the usefulness of accounting information is not restricted to internal control. Being able to demonstrate the capacity for financial control through adequate accounting may itself enhance credit-worthiness, and thus directly enable an otherwise impracticable future course of action. Also, accounting for the closed past could provide some information for planning re-organizations of what has already been done.

The relevance of any accounting system for farm management should be judged in the light of these considerations. The criteria which are adopted in this treatment are how an accounting system can be helpful for control, understanding and evaluation, planning and budgeting, and enhancing credit-worthiness. How accounting can assist these functions of management can only be assessed in the light of the distinguishing features of agriculture. These include the interdependence of home and business, the unity of ownership and management, the unspecialized character of management, the large number of independent firms, the ready saleability of many farm assets, the occurrence of joint products and joint costs, the flexibility of production processes, and the long duration of production processes.[8]

[7] See Mauldon R. G., Schapper, H. P. and Treloar, D. W. G., A managerial accounting system for Australian agriculture, *ABACUS*, Vol. 4, No. 1, August, 1968, pp. 39-50.

[8] The implications of these distinguishing features of agriculture for an ideal farm managerial information system are treated in greater length in Mauldon *et al.*, *op. cit.*, footnote 7.

Control

Central to the Laboratory's system is the possibility of using accounting information for control of current farming processes. Though the natural and market environments can be controlled by the farmer to only a limited extent, there is considerable scope for internal control of many aspects of farming. The flexibility and long duration of many farming processes provide opportunities to alter, terminate, extend or re-direct farming processes between the time when decisions are first made and resources are first committed, and the time when final outcomes are realized. There are also many opportunities for financial control. Levels of expenditure on future inputs can be reviewed, expenditures and receipts can be postponed or brought forward, and adjustments can be made between various funds accounts. Wages for family labour are not a regular commitment, nor is consumption financed from an annual appropriation of profit, allowing considerable flexibility in household drawings from the business. Even the sale or purchase of farm assets is an ever-present possibility, since resources are readily interchangeable between farms and there is only a narrow gap between acquisition and disposal values for many assets.

Timeliness is the essence of control. If a system is to be useful for control it must process the farmer's records rapidly and report to him frequently. Also, accounting information should relate to time periods which are relevant for planning and evaluation. These may not be the same for all aspects of the farm. The planning and accounting period for the whole business may be overlapped by the planning and accounting periods of the various farming activities. The possibility of technical and financial control for each of the farm's production processes should be used to strengthen financial control for the business as a whole, rather than to weaken it. It follows that accounting for control should be in technical as well as financial terms,[9] and for individual activities as well as for the whole business.

The Laboratory's accounting system has been designed with each of these considerations in mind. In contrast to the system of the Queensland Report which is 'framed around three major annual statements',[10] information is provided by the Laboratory monthly, since commercial practice is to account to the farmer monthly. However, the Laboratory currently processes weekly, and the turn-around time from the farmer's dispatch of records to his receipt of information varies between five and twelve days.

Each month the farmer receives two summary reports. The first gives flows of funds from all sources and to all uses. The second relates net flows to changes in balances for each of the farmer's funds accounts. These are for the whole managerial unit, and include home and business, and capital and current items. Quarterly the farmer receives a report of production and operations for the whole of the farm. This is in purely physical terms and is the technical counterpart of the financial reports. The system allows this report to come monthly, but currently this frequency is not thought to be warranted.

[9] This point is well made by Cooke-Yarborough, R. E., Accounting and planning for farm management: a review article, *Rev. of Marketing and Agric. Econ.*, Vol. 35, No. 3, Sept., 1967, pp. 178-190.

[10] *Queensland Report, op. cit.*, p. 11.

Each of these reports refers to the planning year for the whole of the managerial unit, as selected by the farmer. Items in both the flows of funds report and the production and operations report are categorized for control. Details of each item are given for the current month or quarter, the year to date, the budget to date, and the budget for the year. Differences between the year to date and the budget to date are also shown. Details of the report of changes in balances include for each fund account the balance at the start of the month, net change during the month, and difference between realized and forecast balance. Also reported are the net change in balances for the month, and the difference between recorded flows and recorded balances. Thus, any failure to reconcile is highlighted.

These reports are designed to facilitate immediate response. Each is intended to encourage the farmer to compare budgeted plans and quantities with realized flows and quantities. The farmer may wish to make adjustments to his plans in the light of these comparisons. New budget items which result from any adjustments can be incorporated into later monthly and quarterly reports.

Not all the information which is required for control need be related to a common planning year. The Laboratory can account for many hundred production activities, and any farm may include several activities which do not correspond to the planning period for the managerial unit as a whole. The farmer can receive a statement for any activity when it terminates or at the conclusion of its accounting period. This shows changes in inventories and details of income and outgo, and where it is appropriate, gives a margin measured as change in inventory plus income less variable outgo. The system can also produce on request a statement for any part of a current or past activity. Separate costs of acquisition, maintenance and improvement can also be identified for each item of plant or machinery, and although it is not yet a standard service, the system could show these at any time for consideration in conjunction with market value.

Within limits the taxation paid in any year can be controlled by the farmer. Accounting in taxation categories within the tax year can therefore provide important information for financial control. This is recognized within the Laboratory's system. Data are stored in disaggregated form and can be identified by month. At any time these can be aggregated into taxation categories for the tax year to date. The Laboratory provides this information as a standard service at the end of the first eight or nine months of the tax year, but it can be sent at any other time on request.

Understanding and Evaluation

Several of the Laboratory's reports are especially designed to demonstrate interrelationships within the managerial unit and to enable assessments to be made of farming performance. The farm is not an isolated business unit, but is intimately associated with the household. Conflicts may exist between home and business over the ways in which labour time is deployed and funds are raised and spent. The unity of ownership and management also means that business goals and family goals are interdependent. The household does not claim a profit surplus, but rather it draws on funds which are also available for business activities. Ac-

counting for understanding and evaluation should highlight these characteristics of farming.

For understanding and evaluation it is also important to be able to identify outputs with the inputs which produce them. In contrast to most industrial processes, in agriculture there is considerable scope for substituting inputs, substituting outputs, and extending or contracting the production period. Accounting for production activities should therefore provide information for assessing what has been realized in relation to what was planned. Ideally the accounting system would relate returns and costs to the processes which incur them. But this is made difficult in agriculture by the frequent occurrence of joint costs and joint products. To calculate unit costs of joint products or to allocate joint costs to different processes requires many arbitrary judgments.

The Laboratory's system makes no assumption that any one accounting statement is central to the assessment of farming performance. This is in contrast to the system of the Queensland Report, where 'the profit statement is the core of the accounting statements prepared', and where statements of assets and liabilities and of sources and uses of cash, while they are intended to be integral, are sequential.[11] The Laboratory prepares a set of statements which relate to the managerial unit's planning year. Four of these statements are designed specifically for understanding and evaluating the managerial unit as a whole.

One is a statement of sources and uses of funds. In this the totals of funds obtained or used correspond to the totals of flows for the planning year given in the last of the monthly financial summaries, adjusted by the overall change in balances of funds accounts. But whereas the items in the monthly reports are categorized for control, in the annual statements they are categorized to show dollars used as demands for funds and dollars obtained as supplies. The annual statement highlights the interdependence of home and business by showing the ways in which various types of cash outflow have been financed from farm and non-farm income, sales of assets, capital inflows and net borrowings. Evaluation is encouraged by listing in adjacent columns the realized and budgeted amounts for each item. Forward planning is encouraged by incorporating a further column for next year's budget. Although budget estimates for the following planning year are likely to have been made prior to the end of the current planning year, the assessment of realized sources and uses of funds could lead to their modification.

There is also a statement of change in equity. For this the farmer estimates current market values of assets and liabilities at the beginning and end of the planning year. Each row of the statement represents a category of liabilities or assets. Closing value of each category of liabilities is shown as being equal to opening value, plus increase in debit balances less decrease in debit balances. Cash assets are treated similarly. Closing market value of each category of other assets is shown as being equal to opening market value, plus purchases, less sales, plus or minus an equating item. This item represents the effect of births, deaths, production and use of inventories, and rises and falls of market values including depreciation. The statement is designed to relate flows to valuations. Its purpose is to show the implications for equity of holding, buying, or selling assets, and of producing income by the business and

[11] *Queensland Report, op. cit.*, pp. 13, 15, 42 and 46.

spending funds by the household. Its intended usefulness for evaluation lies in its recognition that farm planning can take place with a view to increasing assets as well as yielding a net cash income.

The third statement consists of three accounting identities, each of which relates important aspects of the managerial unit to change in equity. In the first, change in equity is related to farm profit, household consumption and changes in market values. In the second, change in equity is related to purchases and sales of assets, new borrowings and repayments, and changes in market values. In the third, change in equity is related to changes in liquidity. In each identity, change in equity is a common reference point.

The fourth annual statement records the dollar balance in each of the managerial unit's funds accounts during each month of the planning year, together with monthly totals of income and outgo cheques outstanding and sundry amounts owed to and by the unit. The farmer has already received this information in his monthly statements, but only here is it brought together in this form for convenience of review.

Accounts for individual farm activities are not constrained to coincide with the accounting period for the managerial unit as a whole. Some activities may be completely wound up in less than a year and could be evaluated, at least in part, before the end of the overall planning year. The Laboratory's system enables accounts to be prepared at the termination of each of these activities. Other activities either continue on from year to year or have inputs and corresponding outputs which overlap the managerial unit's planning year. For these the Laboratory's system enables accounts to be prepared at the end of the specific accounting period of each activity. A period would normally be chosen for which opening and closing inventories are of least significance, and during which outputs most closely correspond to inputs. The activity statements account for changes in inventories and details of income and outgo, and give a margin, measured as change in inventory plus income less variable outgo, where it is feasible and meaningful to measure them. The activity analyses highlight accountable inputs and outputs, which are elements of understanding and control, rather than the margin between total income and total outgo, which is difficult to assess without arbitrary allocations.

The role of profit in the Laboratory's accounting system differs from that of other systems. In other forms of business where ownership is divorced from management, it is necessary for management to account for profit to shareholders, usually once a year, so that appropriations can be made and past disbursements understood. Accounting for this purpose is largely irrelevant for farming, where household drawings from the business usually are a continuing flow.[12] However, even in single proprietorship businesses, profit accounting could be useful for evaluating performance. This is so for trading businesses where the volume of flows dominates the holding of inventories which are not ready for sale. When the reverse is true, as it can be in farming where large stocks are held over long production periods, the usefulness of the conventional profit statement for management becomes weaker. A conventional profit state-

[12] Companies requiring custodial accounting do exist in Australian agriculture, and the Laboratory's system is flexible to handle information needs for separate entities within the managerial unit.

ment is not part of the Laboratory's accounting system. However, a farm profit figure, with an associated statement of how it is derived, is incorporated into one of the annual accounting identities.

All of the usual difficulties of assessing farm profit are encountered in deriving the profit figure in the accounting identity.[13] However, by accounting for profit in this way the implications for the assessment of the whole of the managerial unit's economic activity can be seen, whereas this is not so for traditional methods of accounting. No information incorporated into the profit figure is required in addition to that given in the annual statement of sources and uses of funds and the statement of change in equity.[14]

By implication the Laboratory rejects that accounting for profit should be 'developed around the gross margin concept',[15] that 'the major function of the statement of assets and liabilities is to provide a base for calculation of the rate of return on capital employed'[16] with 'all fixed assets . . . shown at cost with depreciation . . . deducted from the total of the respective assets',[17] and that farm profits should be prepared to facilitate 'comparisons between individual farms in both the same and different districts'.[18]

The gross margin is neither an appropriate nor reliable basis for calculating farm profit.[19] It is inappropriate because the calculation of the gross margin of individual activities should not necessarily be constrained to the accounting period of the farm as a whole. It is unreliable because the generally arbitrary allocation of inputs such as fuel and labour, which is necessary for the calculation of gross margins, is unnecessary for the calculation of farm profit. For estimating profit all that needs to be known about income or expenditure is whether it should be taken into account. Each activity should be assessed in terms of its own appropriate accounting period, and should be related to the whole farm through its impact on funds which are available and required, and its contribution to asset structure.

The major function of accounting for assets and liabilities in agri-

[13] These difficulties are discussed by Beck, G. W., Some problems of profit determination in primary industry, *Australasian Association of University Teachers of Accountancy, Papers Presented at 1965 Conference*, Melbourne, 1965, pp. 2-1 to 2-17. The Laboratory's profit figure is: income net of outgo on the current year's farm activities; plus income from sale of livestock, less outgo on purchase of livestock; plus net change between opening and closing valuations of livestock and produce, and money owed and owing for the current year's farm activities; plus net change between opening and closing valuations of plant and machinery; less outgo on the purchase of plant and machinery, plus income from its sale.

[14] A Venn-diagrammatic illustration of the interrelationship between cash flows, profits, and change in equity, as they are treated in the Laboratory's accounting system, is given in Mauldon *et al., op. cit.*, footnote 7.

[15] *Queensland Report, op. cit.*, p. 15. The National Workshop concurred with this general approach to the profit statement.

[16] *Ibid.*, p. 12. No reaction to this point was recorded from the National Workshop.

[17] *Ibid.*, p. 43. Whereas the Queensland Report rejected assets at present market values, except to recommend that they be footnoted, the National Workshop commented that in addition to cost less depreciation, current market values should be shown.

[18] *Ibid.*, p. 12. The National Workshop showed caution on this point, stressing the Queensland Report's own statement that 'comparative analysis can be a questionable, and even a misleading, procedure in the hands of an inexpert analyst'.

[19] See Cooke-Yarborough, *op. cit.*, pp. 181-183.

culture should be to assess change in equity, which may be a goal in farming in association with the production of cash income. Thus the statement of assets and liabilities has major value in its own right, and any role as a basis for the calculation of ratios is secondary.

Accounting for assets and liabilities at historical cost, although appealing to the 'principle of realization', is only useful to show the disbursement of shareholders' funds, which is largely irrelevant for agriculture.

Whole-of-farm comparisons are of doubtful usefulness. The conditions under which reliable intra-farm conclusions can be drawn from inter-farm comparisons have been largely ignored by enthusiasts for this approach. Inter-farm comparisons could be quite misleading when they are made between farms with dissimilar production possibilities, dissimilar combinations of production activities, or where they fail to show the implications of differences in the structure of fixed assets.[20]

Planning and Budgeting

The Laboratory's accounting system is designed to establish a link between historical information and planning and budgeting. Monthly statements of cash flows and quarterly statements of production and operations provide for the farmer's budget or plan both to the date of the statement and for the whole planning year. Statements for the last quarter of the planning year have provision for entering the budget or plan for the next year. The monthly statements of change in dollar balances also provide for forecast balances. The annual statement of sources and uses of funds, in which items are categorized for planning, also provides for budget figures for the current planning year and has provision for entering the next year's budget. The intention is that the farmer, seeing these headings every time he refers to these statements, will be encouraged to make new plans and budgets and modify existing ones.

Budget figures can be sent to the Laboratory to be incorporated into these statements, and can readily be replaced with any modifications supplied by the farmer. Currently the system only incorporates budget and physical planning figures for cash flows and production and operations for the planning year. However, planning can also be for asset creation and for activities whose planning periods do not coincide with the planning year. This is recognized in the nature of the statements prepared, but as yet the system does not handle budget or physical planning figures for asset creation or individual activities.

Planning and budgeting are emphasized within the Laboratory's system, but at no stage is it assumed who will do the planning and budgeting, when it will be done, or the mechanism for its review or modification. The planning functions of the farm manager are extremely broad. The unspecialized nature of management means that one man is concerned with planning for a variety of situations which vary in complexity, significance, comprehensiveness, time, specificity, flexibility, and frequency.[21] As a result, planning for farm management is a continuous

[20] Candler, W. and Sargent, D., Farm standards and the theory of production economics, *J. Agric. Econ.*, Vol. 15, No. 2, Dec., 1962, pp. 282-290.

[21] The implications of these characteristics for planning are discussed by Le Breton, P. P., and Henning, D. A., *Planning Theory*, Prentice-Hall Inc., Englewood Cliffs, 1961, Chapter 2.

function rather than a periodic event, and different aspects of planning may be most appropriately handled in different ways. It is certainly misleading to imply that 'before settling on any line of action, the farmer needs assistance from the accountant in selecting the best line',[22] or even that 'the agricultural extension officer and the accountant jointly prepare the partial budget'.[23] Planning might best be handled by the farmer himself, while aspects of it might best be handled by the farmer in association with consulting specialists who may or may not have access to specialized planning and problem-solving facilities.

Despite the Laboratory's emphasis on planning and budgeting, the role of historical farm data is limited for this purpose. The hypothetical concept of the gross margin is extremely useful for planning, but the use of historical gross margins can lead to severe errors of inference due to arbitrary assessments and other practical difficulties associated with this type of accounting. The major usefulness of activity accounting for planning lies in the information it provides about relationships between inputs and outputs which can be modified for planning, rather than about residual gross margins which could accumulate errors of measurement and assessment.

Information for planning comes from a variety of sources, and may be transformed into plans and budgets by a variety of procedures. Whatever these procedures, full understanding of the farm business is required. Moreover, the value of plans and budgets is enhanced by their use in the continuous control of the farm home and business.

Credit-worthiness

One of the intentions of the Laboratory's Managerial Information Service is to increase the credit-worthiness of farmers. Many Australian farmers do not meet all of their financial needs from within the farm. Because of the small size of the typical farming unit, the unspecialized character of management, and lack of control over the natural and market environments of farming, personal credit-worthiness is an important determinant of the plans and budgets which can be adopted by the farmer, and of creditors' willingness to enable plans to be implemented. Credit-worthiness is subjectively determined by the lender's evaluation of collateral, the expected pay-off from the proposed plans, and evidence about the farmer's understanding of his financial affairs and his capacity for control.

Whereas each of the Laboratory's statements has been prepared for a primary function other than increasing credit-worthiness, they are designed to inspire and maintain the confidence of existing and potential creditors. This is based on the assumption that creditors favour debtors who provide evidence of continuing interest in their creditors, and of specific plans and budgets to repay on time. The farmer who has monthly reports of all money flows and their reconciliation with all funds accounts is better able to demonstrate that he can regularly and frequently review his overall financial situation. His annual statements of month by month movement of dollar balances could alert him to the possibility of better management of his debtors and creditors and of the timing of his income and outgo. The monthly up-dating and comparison with the budget are

[22] *Queensland Report, op. cit.*, p. 13.
[23] *Farm Management Accounting: A Commentary, op. cit.*, p. 30.

also likely to be of interest to creditors. The Laboratory's accounting system provides much of the information which is needed by existing and potential creditors.

Farmer and Non-Farmer Participation

The Laboratory's system seeks to be compatible with the needs of each of its users. Farmers can use it for control, planning and budgeting, evaluation and understanding, and enhancing credit-worthiness. Accountants can use it for legal and tax accounting. Consultants can use it for control, planning and problem-solving. Finally, it provides data and information for teaching and research.

In this system it is the farmer's responsibility to record and allocate, and it is the farmer who receives the basic statements from the Laboratory. The method of recording and the managerial statements are therefore designed with simplicity for farmer use, and to be usable without explanation. Even so the farmer is encouraged to attend a one-day seminar to instruct him in how to record and how to allocate accurately, and in subsequent seminars he is instructed in how to make use of the various statements. This educational component is an integral part of the whole system.

The system is designed to convey information direct to the farmer, but additional copies of printouts can be sent direct to consultants, accountants, partners, or any other person authorized by the farmer. Multiple-copy recording forms are also available so that farmers can send basic data direct to other interested parties for their individual needs. But the system is flexible and can meet needs beyond these. Since data are stored in disaggregated form, can be identified by month, and are rapidly retrievable, they can be used in a variety of ways for the accountant, consultant, teacher or researcher.

The system is currently being used in all of these ways. As a standard service flows in and out of the managerial unit for the tax year are aggregated into taxation categories. These can be available to the accountant for his audit and analysis within days of the completion of the tax year. Some consultants have made known their special needs, and the Laboratory provides special services for their groups of farms. Already information from the Laboratory is playing a useful role in the programme of teaching and research of the University of Western Australia. This wide range of uses is made possible by using a standard form of input, but a presentation of output which is tailored to particular needs.[24]

Unlike most other systems, therefore, the accountant or the consultant are not necessary intermediaries, but can be important users of information from the Laboratory.[25] The central role of the far-

[24] Thinking at this point concurs with that of the Queensland Report and some contributors to the National Workshop that input should be standardized and compatible codes adopted, but it is at variance with the principle of the necessity for a standardized presentation of accounts. See *Queensland Report, op. cit.*, p. 8, and Pearse, R. A., Lessons from U.S. developments in EDP of farm accounts, *Farm Management Accounting: A Commentary, op. cit.*, pp. 16, 17.

[25] In this regard the system is contrary to the thought of the Queensland Report. 'Accounting systems which have been designed to be operated by farmers without professional assistance appear to have suffered always from one of two defects. Either they are too simple to yield any really useful information, or they are too difficult for self-operation by a person untrained in accounting.' *Queensland Report, op. cit.*, p. 6.

mer is a deliberate feature of the system. The farmer is in a unique position to record allocations, and the monthly frequency of recording minimizes demands on memory and maximizes opportunities to use primary documents. Also, the farmer's involvement in the recording process itself contributes to his opportunities for control. It is true that recording is frequently regarded as an additional chore and not an integral part of management, and that many recording schemes have not sustained the interest of farmers.[26] This could be because they share features of traditional accounting systems which ignore the distinguishing features of agriculture, and provide information which comes to the farmer too late to be usable.

[26] Rowe, A. H., Electronic processing of farm management records in the United States and Canada, *Quart. Rev. Agric. Econ.*, Vol. 20, No. 1, June, 1967, pp. 39-50.