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Articles in the field of agricultural economics, suitable for publication in the journal, will be welcomed.

Articles should have a maximum length of 10 folio pages (including tables, graphs, etc.) typed in double spacing. Contributions, in the language preferred by the writer, should be submitted in triplicate to the Editor, c/o Department of Agricultural Economics and Marketing, Pretoria, and should reach him at least one month prior to date of publication.

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* Compiled at the beginning of February 1973. Latest figures included herein are provisional

A review of the quality of management in South African agriculture

by

J.A. GROENEWALD
University of Pretoria

I. INTRODUCTION

It has often been alleged that the quality of management in South African agriculture is low; indeed this is sometimes cited as one of the basic problems of agriculture in this country.

An analysis of taxable incomes showed that although average incomes of farmers compare favourably with those of the members of other professions, the distribution is so skew that a large group of farmers have to be satisfied with low incomes¹⁾. It was also shown that there are tremendous variations in farming efficiency between individual farms in fairly homogeneous farming areas²⁾; presumably such fluctuations will also be found in average groups of farmers in different areas.

An attempt will be made in this article to evaluate the South African farmer as a manager. The findings of a number of surveys will be compared with established management criteria.

II. MANAGEMENT CRITERIA

The following have been specified as the managerial functions of the farmer³⁾:

1. Identifying problems and/or opportunities.
2. Collecting facts concerning the problems and/or opportunities.
3. Evaluating the facts and reaching a decision.
4. Carrying out a decision.
5. Bearing responsibility.

The first three steps are obviously closely connected with the farmer's knowledge and willingness and/or eagerness to acquire knowledge. In the dynamic world in which the modern farmer

lives knowledge is not only an integral part of management⁴⁾ but is even necessary for spotting opportunities or problems.

In this regard the progressive farmer is someone who continually "recognises the importance of science and technological change for the continued development of the enterprise"⁵⁾ He will therefore make constant efforts to acquire knowledge by buying and reading agricultural textbooks and periodicals, listening to agricultural programmes over the radio, keeping in touch with extension officers, and attending farmers' days and farmers' meetings regularly. The progressive farmer will also keep accurate physical and financial records and use them in planning.

The progressive farmer will also have clearly formulated goals. He will strive for a high net income, have clear plans for improving his farm and follow modern, proven practices in his farming operations.⁶⁾

The effective implementation of decisions requires planned action. Maintenance tasks in respect of all his inputs should therefore be regularly and efficiently performed. The progressive farmer will maintain a high standard in his labour organisation, labour control and labour motivation.⁷⁾

When it comes to responsibility, short-term responsibility should be mentioned first. The manager accepts short-term responsibility for business results, as reflected in profits. But long-term responsibility is at least as important - particularly with regard to the conservation of the soil, which is a destructible and irreplaceable asset. "No farmer who disregards conservation can be deemed truly progressive."⁸⁾

1) Groenewald, J.A. (1971). The state of South African agriculture - a diagnosis. *Agrekon* 10(1): 12-26

2) Hattingh, H.S. (1969). Farm management - a prerequisite for sound agricultural development. *Agrekon* 8(2): 54-59

3) Johnson, Glenn L. (1957). Methodology for studying decision-making. *J. Farm Econ.* 39: 1 215-1 226

4) Johnson, Glenn L. (1959). Managerial concepts for agriculturalists. *Kentucky Agr. Exp. Sta. Bul* 6/9

5) Burger, P.J. & Groenewald, J.A. (1971). Measuring managerial inputs in agriculture, II: A South African concept of agricultural progressiveness. *Agrekon* 10(3): 26 - 28

6) Burger, P.J. (1971). The measurement of managerial inputs in agriculture, III: The construction and evaluation of a scale. *Agrekon* 10(4): 5-11

7) *Ibid.*

8) Burger, P.J. and Groenewald, J.A., *op. cit.*

For the purposes of this article where the relevant survey data are available, the South African farmer may therefore be evaluated on the following: 9)

1. Level of aspiration with regard to income.
2. Future plans for the farm.
3. Eagerness to acquire knowledge.
4. Adoption of modern, proven farming practices.
5. Standard of record-keeping.
6. Systematic performance of maintenance tasks.
7. Quality of organisation and control of labour.
8. State of conservation.

III. LEVEL OF ASPIRATION AND PLANS FOR THE FUTURE

Table 1, which was compiled from a number of surveys carried out during the past decade, is a profile of the farmers' level of aspiration with regard to income.

- 9) Except where otherwise stated, the survey data come from the following sources:

Burger, P.J., 1967. Agricultural progressiveness: A South African concept. D. Agric. (Inst. Agrar.) dissertation, University of Pretoria

Coetzee, J.J., 1967. Besproeiingsboerdery langs die Krokodilrivier, Thabazimbi-distrik: 'n Studie van sekere sosio-ekonomiese en voorligtingsprobleme. M. Agric. (Inst. Agrar.) thesis, University of Pretoria

Conradie, A.P., 1965. Die boerderysituasie in die Badfontein-grondbewaringsdistrik, Lydenburg, Transvaal. M.Sc. (Agric.) thesis, University of Pretoria

De Swardt, J.B., 1965. Die besluitvormingsproses by tafeldruifboere in die Hexrivier-vallei. D. Sc. (Agric.) dissertation, University of Pretoria

Dovey, P.A., 1968. The adoption of veld management practices in the Bathurst-Settlers soil conservation district. M.Sc. (Agric.) thesis, University of Pretoria

Eksteen, H.O., 1965. Boerderydoeltreffendheid op die kwartstiese grond van Klerksdorp. M.Sc. (Agric.) thesis, University of Pretoria

Kolbé, F.F.H., 1962. 'n Ondersoek na die aanvaarding van verbeterde akkerboupraktike in die Settlers-grondbewaringsdistrik soos beïnvloed deur sekere sosio-ekonomiese faktore. D.Sc. (Agric.) dissertation, University of Pretoria

Kotzé, J.E., 1967. Die aanneemlikheid van verbeterde boerderypraktike in die gebied noord van die Soutpansberg. D. Agric. (Inst. Agrar.) dissertation, University of Pretoria

Kritzinger, F.M., 1965. Die boerderysituasie op die Lebombovlakte, Oos-Transvaal. M. Agric. (Inst. Agrar.) thesis, University of Pretoria

Table 1 shows that the majority of the farmers in the various regions, with one exception, are satisfied with low incomes. This means that many farmers can undertake no or only very poor long-term planning for the improvement of their farms. Further surveys could also shed light on the matter, as Table 2 shows.

On the one hand, it is encouraging to note that in three of the four regions 45 per cent or more of the farmers had definite, rational plans for the future.

On the other hand, however, it was found in three of the four regions that over 50 per cent of the farmers' plans could at best be called "fair" or "vague".

IV. EAGERNESS TO ACQUIRE KNOWLEDGE

Here attention will first be given to formal training in agriculture. As early as 1948 it was

Le Roux, F.J., 1966. Die aanvaarding van verbeterde vrugteverbouingspraktike in die Koue Bokkeveld-grondbewaringsdistrik. M.Sc. (Agric.) thesis, University of Pretoria

Roelofse, J.H.F., 1968. Die skaap- en graanboerderysituasie in die Caledon-Rûens. M. Sc. (Agric.) thesis, University of Pretoria

Schutte, W.J., 1967. Fabriekstamatieproduksie in die Blyde-Klaseriebesproeiingsgebied. M. Sc. (Agric.) thesis, University of Pretoria

Schone, F.K., 1965. The Sunday River irrigation district: A descriptive evaluation. M.Sc. (Agric.) thesis, University of Pretoria

Sieper, A.J., 1964. Evaluasie van die voorligtingsituasie ten opsigte van weiveldpraktike in die Tafelberg- en Rhenosterberg-grondbewaringsdistrik, Middelburg, Kaap. M.Sc. (Agric.) thesis, University of Pretoria

Van der Westhuizen, J.N., 1965. Die voorligtingsituasie in die Aggenys-grondbewaringsdistrik, Middelburg, Kaap. M.Sc. (Agric.) thesis, University of Pretoria

Van Zyl, D.P., 1969. Voorligtingkundige navorsing in die Bo-Oranje-opvanggebied. Department of Agricultural Technical Services, Pretoria

Viljoen, L.J., 1966. Industriële melkproduksie in die Drakensberg-bewaringsgebied. M. Sc. (Agric.) thesis, University of Pretoria

Visser, C.J., 1964. Benutting van die melkaantekeningskema in die distrik Burgersdorp. D.Agric. (Inst. Agrar.) dissertation, University of Pretoria

TABLE 1 - Percentages of farmers who aspire to various net incomes

Region	Year of survey	Percentage aspired to net incomes of:				Source of data
		Under R1 000	R1 001 to R3 000	R3 001 to R4 000	Over R4 000	
		%	%	%	%	
Upper Orange Catchment	1966	7	40	22	31	Van Zyl, D.P.
Irrigation, Thabazimbi	1966	9	61	9	21	Coetzee, J.J.
Part of Middelburg, C.P.	1961	0	46	9	45	Siepkker, A.J.
Caledon-Rûens	1964	5	59	19	17	Roelofse, J.H.P.
Lebombo Flats, Eastern Transvaal	1964	5	67	23	5	Kritzinger, F.M.
Badfontein, Dist. of Lydenburg	1964	54	43	3	-	Conradie, A.P.

TABLE 2 - Percentages of farmers who have definite plans for improving their farms

Region	Year of survey	No or poor plans	Fair but vague plans	Clear, rational plans	Source of data
		%	%	%	
Upper Orange Catchment	1966	21	31	48	Burger, P.J.
Drakensberg Conservation Area	1964	3	42	55	Viljoen, L.J.
Caledon-Rûens	1964	17	38	45	Roelofse, J.H.F.
Burgersdorp	1964	40	36	24	Visser, C.J.

said that the time was past for farmers to enter the industry without any formal training.¹⁰⁾

In addition to faculties at universities, there are five agricultural colleges in South Africa at present, and together these can handle about 600 students. Only about 70 per cent of this accommodation is used, however.¹¹⁾ This is evidence of a lack of interest in formal education.

As far as informal education goes, Tables 3, 4, 5, 6 and 7 indicate respectively how many farmers had no contact with their extension officers, what the farmers' reading habits are in respect of agricultural periodicals and the ownership of books, how many farmers listen to the radio, and lastly how many farmers attended no farmers' days etc. during the year.

Tables 3 to 7 show great differences between the regions in certain cases. However, a pattern does emerge. In six of the seven regions over 40 per cent of the farmers had no contact with the extension officers. The figures for the reading of agricultural periodicals looked better (Table 4); nevertheless there are parts of the country where more than 20 per cent of the farmers take no agricultural periodicals. On the other hand, the high percentage that take more than one periodical is encouraging. There is another consideration: how intensively are these periodicals read? The number of textbooks owned by farmers is very low (Table 5). Similarly, according to

Table 6, there are many farmers who never or very seldom listen to agricultural programmes on the radio. In seven of the eight regions included, less than a third of the total were regular listeners.

Many farmers appear to be reluctant to attend farmers' days (Table 7). It seems on the whole that the South African farmer is not very eager to improve his knowledge of farming. As will be indicated later, this leads to farming practices that cannot be reconciled with conservation or with high long-term profits.

V. ADOPTION OF IMPROVED FARMING PRACTICES

Various surveys indicate the extent to which farmers are adopting improved farming practices. In the Cold Bokkeveld recommended practices are being fairly generally adopted. Over 70 per cent of the farmers are fertilising in accordance with a previously prepared programme, having trees pruned under supervision, spraying apples with calcium, thinning apples and planting permanent cover crops in orchards. Even here, however, there are problems; less than 45 per cent of the farmers plan their irrigation properly, cover pruning wounds and spray with boron.¹²⁾

Over 80 per cent of the farmers in the Drakensberg Conservation Area planted hybrid maize in 1964, dipped their cattle and controlled internal parasites, but less than half these farmers treated heifer calves for contagious abortion, planned their farms, immunised their cattle against redwater or gallsickness or fed concentrates in accordance with the cows' milk yields.¹³⁾

10) Union of South Africa (1948). The De Villiers Commission on Technical and Vocational Education. Government Printer, Pretoria

11) Republic of South Africa (1970). Second Report of the Commission of Inquiry into Agriculture. Government Printer, Pretoria, RP 84/1970

12) Le Roux, F.J., *op. cit.*

13) Viljoen, L.J., *op. cit.*

TABLE 3 - Percentages of farmers who had no contact with their local extension officers in the course of one calender year

Region	Year of survey	Percentage of farmers	Source of data
		%	
Upper Orange Catchment	1966	47	Van Zyl, D.P.
Drakensberg Conservation Area	1964	50	Viljoen, L.J.
Cold Bokkeveld	1965	64	Le Roux, F.J.
Irrigation, Thabazimbi	1966	19	Coetzee, J.J.
Klerksdorp	1963	43	Eksteen, H.O.
Aggenys (North-Western Cape)	1964	41	Van der Westhuizen, J.N.
Settlers (Tvl)	1961	56	Kolbé, F.F.N

TABLE 4 - Classification of farmers according to the number of agricultural periodicals to which they subscribe

Region	Year of survey	Percentage of farmers				Source of data
		No peri-odicals	One peri-odical	Two peri-odicals	More than two	
		%	%	%	%	
Sundays River Valley	1964	21	52	18	9	Shone, F.K.
Part of Middelburg, C.P.	1961	3	6	20	71	Siepker, A.J.
Klerksdorp	1963	10	59	27	4	Eksteen, H.O.
Burgersdorp	1964	6	54	30	10	Visser, C.J.
Badfontein, Dist. of Lydenburg	1964	33	40	14	12	Conradie, A.P.

TABLE 5 - Percentages of farmers who possess various numbers of agricultural textbooks

Region	Year of survey	Percentage of farmers who possess various numbers of textbooks				Source of data
		0	1-2	3-4	5 and over	
		%	%	%	%	
Sundays River	1964	48	19	17	16	Shone, F.K.
Part of Middelburg, C.P.	1961	35	14	18	33	Siepker, A.J.
Klerksdorp	1963	51	31	18	0	Eksteen, H.O.

TABLE 6 - Percentages of farmers who listen to agricultural programmes on the radio, and the number of times a week they listen

Region	Year of survey	Percentage of farmers who listen the following number of times a week			Source of data
		0	1-2	3-5	
		%	%	%	
Drakensberg Conservation Area	1964	53	32	15	Viljoen, L.J.
Part of Middelburg, C.P.	1961	50	33	17	Siepker, A.J.
Caledon-Rûens	1964	46	40	14	Roelofse, J.H.F.
Lebombo Flats, Eastern Tvl.	1964	25	36	39	Kritzinger, F.M.
Aggenys (North-Western C.P.)	1964	29	42	29	V.d. Westhuizen, J.N.
Klerksdorp*	1963	12	70	18	Eksteen, H.O.
Badfontein, Dist. of Lydenburg*	1964	20	69	11	Conradie, A.P.
Burgersdorp**	1964	37	30	33	Visser, C.J.

* Only indicated as "never", "sometimes" and "regularly"

** Only indicated as "low", "average" and "high"

TABLE 7 - Percentages of farmers who attended no farmers' days, demonstrations, etc. in the course of a year

Region	Year of survey	Percentage of farmers	Source of data
		%	
Drakensberg Conservation Area	1964	40	Viljoen, L.J.
Cold Bokkeveld	1965	16	Le Roux, F.J.
Klerksdorp	1963	63	Eksteen, H.O.

In the Blyde-Klaserie area 50 per cent of the factory tomato producers had to cope with bacterial canker, but 32 per cent applied no treatment whatsoever. Twenty-seven per cent did not control eelworms, 26 per cent did not provide for the drainage of seedbeds. In most cases fertilisation was inadequate and 32 per cent of the farmers did not have their soil analysed. Sixty-seven per cent tried the right treatment for American bollworm, and 84 per cent treated red spider correctly.¹⁴⁾

14) Schutte, W.J.(1967). Fabriekstamatieproduksie in die Blyde-Klaseriebesproeiingsgebied. M. Sc. (Agric.) thesis, University of Pretoria

In 1964 it was found in the Lebombo Flats in the Eastern Transvaal that most farmers used poor methods of bull selection, that 37 per cent applied no phosphate licks and 67 per cent no urea licks. Forty-three per cent of the farmers did not wean calves at the correct stage - which contributed to low fertility. Only 45 per cent of the farmers applied correct dishorning practices.¹⁵⁾

In the Hex River Valley it was found that in 1965 only 22 per cent of the farmers employed good trellising systems and good fertilising practices. On the average these farmers harvested 2 753 export trays of table grapes per bearing morgen. The farmers who applied average trellising systems and fertilising practices harvested an average of 1 260 export trays per bearing morgen. Those farmers whose trellising systems and fertilising practices were poor harvested only 921 export trays per bearing morgen on the average.¹⁶⁾

It was found in 1964 in the Aggenys Soil Conservation District that only 50 per cent of the karakul farmers selected ewe lambs with good pelt and breeding characteristics. Although lam-siekte is common, only 28 per cent of the farmers inoculated their sheep against it.¹⁷⁾

These examples show that many farmers - partly because of ignorance - are very slow to improve their farming practices. The result is general low productivity and poor financial results.

For instance, the average milk production per dairy cow in the possession of White farmers in South Africa is between 1 140 and 1 360 kg a year.¹⁸⁾ 19)

This is only about one half of the average yield in Australia, and a quarter of the average yield in the Netherlands.²⁰⁾ The average yield in South Africa is far too low for profitable production in any case. Similarly the average fertility of the South African beef herd is only about 50 per cent; production is not profitable if the fertility figure is under 70 per cent.²¹⁾

15) Kritzinger, F.M., *op. cit.*

16) De Swardt, J.B. (1965). Die besluitvormingsproses by tafeldruiweboere in die Hexrivier-vallei. D.Sc. (Agric.) dissertation, University of Pretoria

17) Van der Westhuizen, J.N., *op. cit.*

18) Bonsma, F.N. and Landrey, J. (1965). An evaluation of certain production aspects of the dairy industry. Dept. Agric. Tech. Serv., Animal Husbandry and Dairy Res. Inst., Banda No. 65/4055

19) Maree, J.H.P. (1962). A general review of the dairy products market in South Africa. Agrekon 1(3): 6-11

20) *Ibid.*

21) Eloff, H.P. (1964). Beef farming in the Transvaal Bushveld. Department of Agriculture, Scientific Pamphlet 376

VI. STANDARD OF RECORD-KEEPING

Well-planned record-keeping is required for effective management.

The reluctance of dairy farmers to join milk recording schemes is probably an important contributory factor to the low productivity in the dairy farming industry. Only about 4 per cent of all dairy cows in South Africa are included in the scheme²²⁾. During the period 1959/60 to 1963/64 the average yield of cows entered for the scheme was far higher than the average of all cows. The figures were as follows: registered Frieslands - 4 670 kg, registered Jerseys - 3 151 kg, grade cows (all breeds) - 3 447 kg.²³⁾ It was found in Burgersdorp that the operational organisation of farmers participating in the scheme was better in virtually all respects than that of farmers who did not participate.²⁴⁾

In a few surveys farmers were subdivided on the basis of the quality of their records. Three groups of farmers can be identified:

1. Those who keep records reflecting a fair variety of information fairly accurately;
2. those who keep poor, confused records; and
3. those who really keep no records at all.

This information is summarised in Table 8.

It appears that a disturbingly large number of South African farmers keep no records at all, and that the records of less than 40 per cent of the farmers are good enough to be used for proper planning. Over 60 per cent of our farmers have not yet taken the first important steps on the road to farming efficiency.

VII. MAINTENANCE TASKS AND LABOUR ORGANISATION

As already said, these matters are very closely bound up with the implementation of production decisions. Although the information given on these matters is based on fewer surveys, the data do give an indication of the situation in South Africa. Farmers were divided into three categories for both maintenance tasks and labour organisation. The categories are as follows:

Maintenance tasks

1. Those who undertake no maintenance, or only do it when a serious crisis arises - a badly organised state of affairs.
2. Those who do maintenance tasks as the need arises - therefore without proper planning but in a fairly orderly way (although this is not entirely satisfactory)
3. Those who attempt and succeed in performing maintenance tasks systematically, in a well-planned and orderly way.

22) Bonsma, F.N. and Landrey, J., *op. cit.*

23) Visser, C.J., *op. cit.*

24) *Ibid.*

TABLE 8 - Classification of farmers on the basis of record-keeping

Region	Year of survey	Percentage of farmers whose records were:			Source of data
		Non-existent	Poor	Good	
		%	%	%	
Drakensberg Conservation Area	1964	12	50	38	Viljoen, L.J.
Caledon-Rûens	1964	34	42	24	Roelofse, J.H.F.
Burgersdorp	1964	37	32	31	Visser, C.J.
Upper Orange catchment	1966	27	34	39	Burger, P.J.
Badfontein, Dist. of Lydenburg	1964	52	37	11	Conradie, A.P.
Aggenys (North-Western Cape)	1964	45	39	16	V.d. Westhuizen, J.N.

Labour organisation and control

Attention was given to the organisation of labour (systematic or unsystematic), relations between the farmer and his labourers, the labourers' living conditions and facilities. The three categories were as follows:

- 1. Poor - not very satisfactory in most cases.
- 2. Fair - the farmer does well in certain aspects, but not as well in others.
- 3. Good - the farmer does well in most aspects, although not necessarily in all.

The results are given in Tables 9 and 10.

It appears from Table 10 that over 40 per cent of the farmers in the areas in question, with the exception of Burgersdorp, tried to undertake their maintenance tasks systematically. With the exception of the Drakensberg Conservation Area, however, there is a disturbingly large percentage - between 18 and 37 - who tackle these tasks in a completely disorganised manner.

Depending on the region, between 23 and 57 per cent of the farmers organise and control their labour properly, and the majority do fairly well. Only a fairly small percentage of farmers perform really badly here, according to the survey.

TABLE 9 - Percentage distribution of farmers, on the basis of how systematically they undertake maintenance tasks

Region	Year of survey	Percentage of farmers:			Source of data
		Disorganised	When the need arises	Systematically	
		%	%	%	
Drakensberg Conservation Area	1964	3	36	61	Viljoen, L.J.
Caledon-Rûens	1964	24	36	40	Roelofse, J.N.F.
Burgersdorp	1964	37	50	13	Visser, C.J.
Upper Orange catchment	1966	18	41	41	Burger, P.J.

TABLE 10 - Percentage distribution of farmers, on the basis of their organisation and control of labour

Region	Year of survey	Percentage of farmers:			Source of data
		Poor	Fair	Good	
		%	%	%	
Upper Orange Catchment	1966	18	49	33	Burger, P.J.
Drakensberg Conservation Area	1964	7	42	51	Viljoen, L.J.
Caledon-Rûens	1964	5	38	57	Roelofse, J.H.F.
Burgersdorp	1964	11	66	23	Visser, C.J.

25) Groenewald, J.A., op. cit.

VIII. LONG-TERM RESPONSIBILITY

Long-term responsibility will, as we have said previously, be measured in terms of the conservation of South Africa's natural resources.

The overall state of soil conservation in South Africa is certainly unfavourable. The country is losing about 450 million tons of soil annually through soil erosion. About one per cent of the total capacity of South Africa's irrigation dams becomes silted up every year; this is equivalent to that of the Hartbeespoort Dam.25)

Consideration of a few specific areas in South Africa emphasises the seriousness of the problem. In the Upper Orange Catchment, for instance, the situation is as follows:26)

Only 15 per cent of the farmers were actively interested in soil conservation in 1966. About 47 per cent of the grazing area was in a poor condition. Forty-nine per cent of water courses showed increases in erosion. The conservation condition of 22 per cent of the land was poor. Moreover, the farmers were not even aware of the poor condition of the veld. Although grazing experts considered 47 per cent of the grazing as poor, the farmers considered only 6 per cent poor.

Consideration of a few specific areas in South Africa emphasises the seriousness of the problem. In the Upper Orange Catchment, for instance, the situation is as follows:26)

26) Van Zyl, D.P., op. cit.

There were, however, areas where the situation was not quite as serious. At Bathurst, for instance, the veld of only 7 per cent of the farmers was in a poor condition in 1965.²⁷⁾

Let us take a look at soil conservation practices. A properly planned rotational grazing system, together with proper division into paddocks, is essential for preserving the potential of the soil. To judge from survey figures, the situation is disquieting in this respect.

In 1966 no planned rotational cropping was applied on 59 per cent of the Upper Orange Catchment.²⁸⁾ The percentages of farmers in other areas that do not apply planned rotational grazing are shown in Table 11.

TABEL 11 - Percentages of farmers that do not apply planned rotational grazing

Area	Year of survey	Percent- age of farmers	Source of data
		%	
Drakensberg Conservation Area	1964	78	Viljoen, L.J.
Lebombo Flats (Eastern Transvaal)	1964	93	Kritzinger, F.M.
Aggenys (North-Western Cape)	1964	51	Vander Westhuizen, J.N.
North of Soutpansberg	1965	90	Kotzé, J.E.
Bathurst	1965	10	Dovey, P.A.

The above facts clearly show that many farmers in many parts of the country fall short when it comes to the conservation of the natural resources - and therefore show a lack of long-term responsibility. In this respect most of the farmers cannot be considered good business leaders.

IX. GENERAL CONCLUSION

Surveys in various parts of South Africa revealed the following:

1. A large percentage of the farmers show only a limited aspiration to make money. The result is a lack of motivation.
2. The plans of about half our farmers for improving their farms are vague or non-existent.
3. A large percentage of farmers show a disquieting lack of interest in improving their knowledge.
4. Consequently the level of adoption of improved farming practices is lower than one would expect in a progressive farming community. This in turn leads to low productivity.
5. Only about one third of the farmers keep well-planned records. A disturbingly large number of farmers keep no records at all. Consequently they cannot plan their annual activities properly.

27) Dovey, P.A., *op. cit.*

28) Van Zyl, D.P., *op. cit.*

6. Although farmers generally do slightly better when it comes to maintenance tasks and the organisation of labour, the situation is not satisfactory.

7. A very large percentage of our farmers give inadequate attention to the conservation of resources, and are lacking in responsibility in this respect.

Consequently there is only one conclusion one can reach - and this is borne out by the income position of South African farmers - and that is: The average South African farmer falls down very badly when it comes to management.

It is dangerous, however, to generalise too much. South Africa does have a top layer of extremely capable managers among the farmers. Indeed it is this relatively small number of good business leaders, when poor to average business leadership is the rule, who are responsible for the fact that the average income looks perfectly satisfactory, although a large number of farmers make a lower income. Similarly about 20 per cent of the farmers produce 80 per cent of the total agricultural production.²⁹⁾

X. POSSIBLE REASONS FOR THE SITUATION

The present situation is partly the result of rapid developments which have made adjustments difficult. But the situation has also sprung from the mistaken attitudes that have long prevailed, both among the farming community itself, and among policy-makers and agriculturists.

In this century South African agriculture has developed rapidly from a self-sufficient way of life to a commercialised industry that produces for the market.

Important structural changes have arisen during this process. The farmer of today sells more products on the market than his predecessors did, and whereas most means of production - seed, fertiliser, tractive power, etc. - used to be produced on the farm, they are bought today. This is an unavoidable development in the present era.

The process of commercialisation in agriculture is making new demands on farm management - demands for which most farmers were not, or are not, prepared.

It was long accepted that the young farmer starting out could acquire all the knowledge he needed from his father. After that he had to learn from his own experience.

The prospective farmer therefore generally did not find it necessary to acquire "book learning", or formal education. The result was that prospective farmers left school too early.

The position in 1960 was that the schooling of 79 per cent of South African farmers stopped short of std 8.³⁰⁾ This in turn means that these farmers

29) Landman, K.P. (1968). Ontvang die boer die boodskap? Manual Symp. Agricultural Communication - S.A. Institute of Agricultural Extension

30) Commission of Inquiry into Agriculture, *op. cit.*, p. 185

are reluctant to do "paper work", in other words to keep records. This low level of education makes most farmers hesitant to acquire difficult and complicated information and adapt their farming accordingly. This attitude to education continued until very recently. Although the younger farmers are slightly better educated than the older farmers, even in 1966 about 65 per cent of the group of farmers between the ages of 20 and 34 years had not passed std 8.³¹⁾

Until this lack of interest in education is surmounted, it will be difficult to raise the general standard of managerial ability.

The present commercial structure of farming also means that not everyone is really suited to management. Some people would be better off in other professions. Unfortunately until very recently the State did nothing or very little to help such persons wanting to give up farming to qualify themselves for alternative professions. The Commission of Inquiry into Agriculture made recommendation in this connection.³²⁾

In the past the Government has done a great deal to keep poor managers in agriculture through certain policy measures, such as the settlement policy, the distress relief policy and the credit policy. Recently instituted or proposed changes in these policies could bring about great improvements.³³⁾

Agriculturists have also contributed to the present situation. On the one hand they have created the type of extension structure that meant that for a long time the extension officers had relatively little time suitable for real extension work. However, the situation is now considerably better than it was only a few years ago.

Furthermore, extension workers have always given too little attention to management. The emphasis has fallen on matters relating to physical production (particularly conservation) and the financial side of farming has been largely ignored.

Management and finances have also been neglected at the agricultural colleges. Although it should be a priority of agricultural training to teach prospective farmers to manage their businesses, this matter has received far too little attention at colleges like Cedara. For a few years from 1951 onwards farm management was not even taught at Cedara.³⁴⁾ In a survey carried out among past students of Cedara, students were asked for recommendations on how to improve the courses. The three commonest recommendations were:³⁵⁾

31) *Ibid.*, p. 185

32) *Ibid.*, p. 238

33) Republic of South Africa (1972). Third Report of the Commission of Inquiry into Agriculture, Government Printer, Pretoria. R.P. 19/72 Chapters IV, V, X

34) Venter, A.D. (1967). Agricultural training at Cedara, Natal. D. Agric (Inst. Agrar.) dissertation, University of Pretoria, p. 58

35) *Ibid.*, p. 136

1. More emphasis on practical book-keeping and economics.
2. The exclusion of excessive detail in other courses.
3. That the theory should always be related to practice.

It therefore appears that this college does not entirely serve its purpose. Unfortunately similar studies have not, as far as is known, been carried out for other agricultural colleges, although similar shortcomings probably also exist at other colleges. During a survey in part of the Karoo, virtually no differences could be found between the management of past students of the Grootfontein College of Agriculture and farmers who had not attended an agricultural college.³⁶⁾

It would therefore be in the interests of agriculture in this country if the colleges of agriculture took a good look at their methods, both individually and as a group, and remedied any shortcomings. This might also lead to greater interest and support from the farming community.

There is another mistake that agriculturists have always made: They have taken it for granted that the farmers would queue up to share their knowledge. Experience in all parts of the world has shown that this belief is mistaken. The extension officer must assist with an educational process and he requires special training in order to do so. A more scientific approach to extension has, however, become possible since the institution of a chair in agrarian extension at the University of Pretoria in 1959.

One problem in connection with farmers' reading habits (agricultural periodicals) has to do with the readability of the periodicals. An analysis of 13 agricultural periodicals written largely for farmers shows the following: In the course of readability ratings reading matter was divided into six categories: Difficult, fairly difficult, standard, fairly easy, easy and very easy. Of the 13 periodicals (which include the most popular ones in South Africa) eight were placed in the category "difficult", four were classified as "fairly difficult" and one as "standard". Not a single periodical was "fairly easy" or "very easy" to read. As far as interest goes, all except two made a poor showing in the judging. Only two were classified as "fairly interesting".³⁷⁾

It was concluded that farmers would buy and read more agricultural magazines if the readability was increased. The magazines are suitable for too few South African farmers. All the magazines are suitable for only 24 per cent of the farmers. No single agricultural periodical is suitable for farmers with less than eight years' education (std 6). This group comprises 32 per cent of all

36) Burger, P.J. (1964). The effect of agricultural training at the Grootfontein College of Agriculture on the behaviour of farmers in the Eastern Karoo Region. M.Sc. (Agric.) thesis, Univ. of Pretoria

37) Gouws, P.J. (1965). Die leesbaarheid van landboublaie. M. Agric. (Inst. Agrar.) thesis, University of Pretoria, pp. 56-57

farmers.³⁸⁾ An investigation of other extension media would probably produce similar results.

XI. A BASIS FOR ACTION

If the aim is to have agriculture share in, and contribute to, the prosperity of the country, it is essential that the managerial ability of farmers should be increased. There are many factors to be taken into account, viz:

1. There are people who would not be able to learn the necessary qualities of leadership. They should be encouraged and helped to enter alternative professions.
2. Every effort should be made to make the farming community aware of the importance of knowledge. This task cannot be performed by a single body. Organised Agriculture, the extension officer, welfare workers and education can all make a great contribution.
3. All teaching of agriculture should place the emphasis on farm management. Similarly it should be given more attention than is at present the case in the course of regular extension.
4. Steps should be taken to ensure that correct, well-planned extension methods are used. These include improving the readability of agricultural literature.

38) *Ibid.*

5. More staff with a specialised knowledge of farm management should be recruited.

6. Because credit has become so important in agriculture, serious attention should be given to the possibility of provisional credit. It has been suggested that credit institutions should consider making the extension of credit dependent on whether the farmer concerned is applying sound business principles on his farm, and that the extension of credit should be followed by advice on management.³⁹⁾

7. The extension organisation should be such that extension officers can concentrate virtually full-time on the most important farming problems in their particular areas.

Normally management is one of the most important problems. These suggestions may help to raise productivity. In spite of what has been said in this article, the writer is convinced that there is a tremendous amount of potential managerial talent among our farmers. For various reasons this potential talent has never blossomed as it should have. But it can and should blossom. Every effort should be made to develop managerial talent. Our most important resource is not land, nor capital and even less the climate. Our most important resource is not the gold under the earth's crust, or the oil that might be there. Our most important resource is our human material. We must develop our human material and make full use of it.

39) See *inter alia* Groenewald, J.A., *op. cit.* Third Report of the Commission of Inquiry into Agriculture, *op. cit.*, p. 194.
Murray, C.A. (1972). Managing agricultural extension. *Agrekon* 11(1): 23-25