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THE NECESSITY OF FARM MANAGEMENT TRAINING AND EXTENSION IN A NEW SOUTH AFRICA

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ABSTRACT

The main objective of this paper is to highlight some of the changes that have occurred in South Africa since the 1980s and to show their impact on the profile of the farming population and on farm management training and extension.

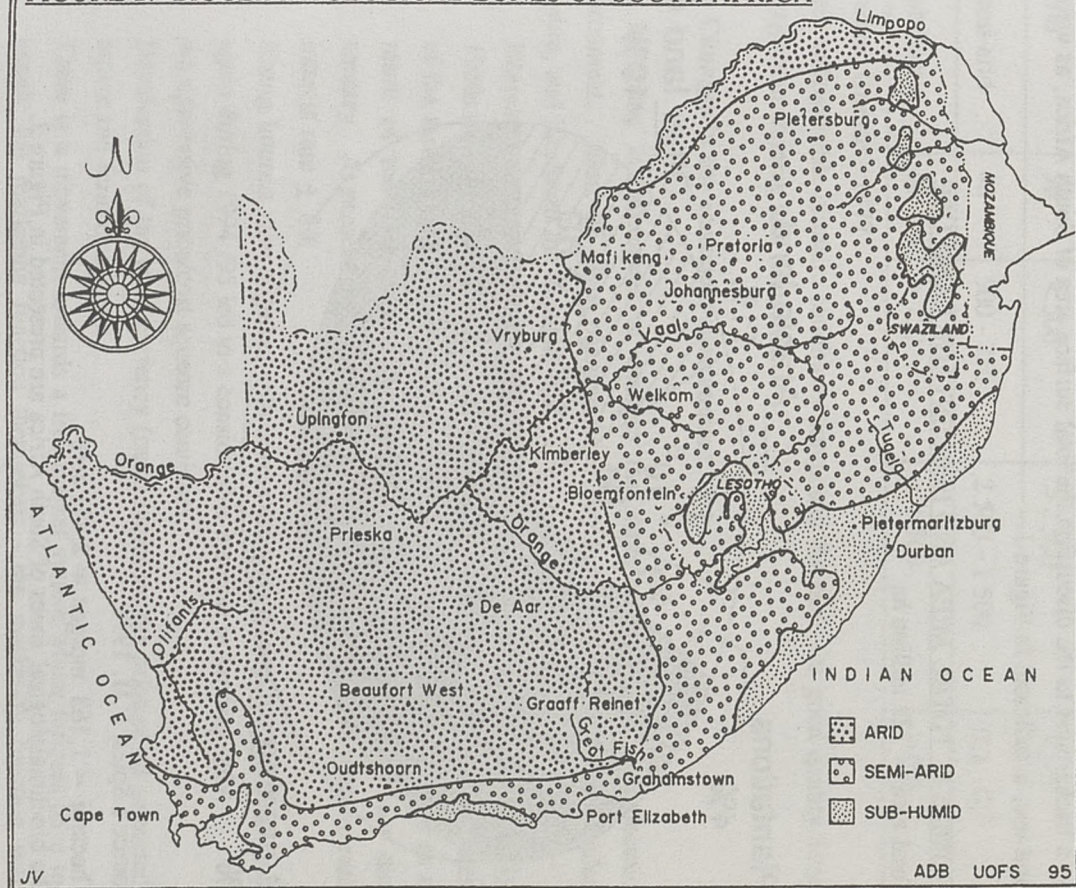
Main conclusions:

- 1. The change in government and the enormous hunger for land had a dramatic influence on the South African agricultural sector and is of such a nature that major adaptations must be made to farm management training and extension.*
- 2. The beginner farmer will become very important and farm management training and extension must be made available to all levels of farmers in order to ensure sustainable agriculture for the country as a whole in the long run.*
- 3. The University of the Orange Free State with its Centre for Agricultural Management is well geared to train farm management advisers. At present course material is being adapted to cater among other for the needs of advisers to beginner farmers.*

1. INTRODUCTION

In the dynamic world we live in change is the name of the game. This is especially true in South Africa where some dramatic changes have occurred over the past decade. These changes also have an impact directly on farm management.

FIGURE 2. BIOCLIMATOLOGICAL ZONES OF SOUTH AFRICA



*Source: Unesco : 1977

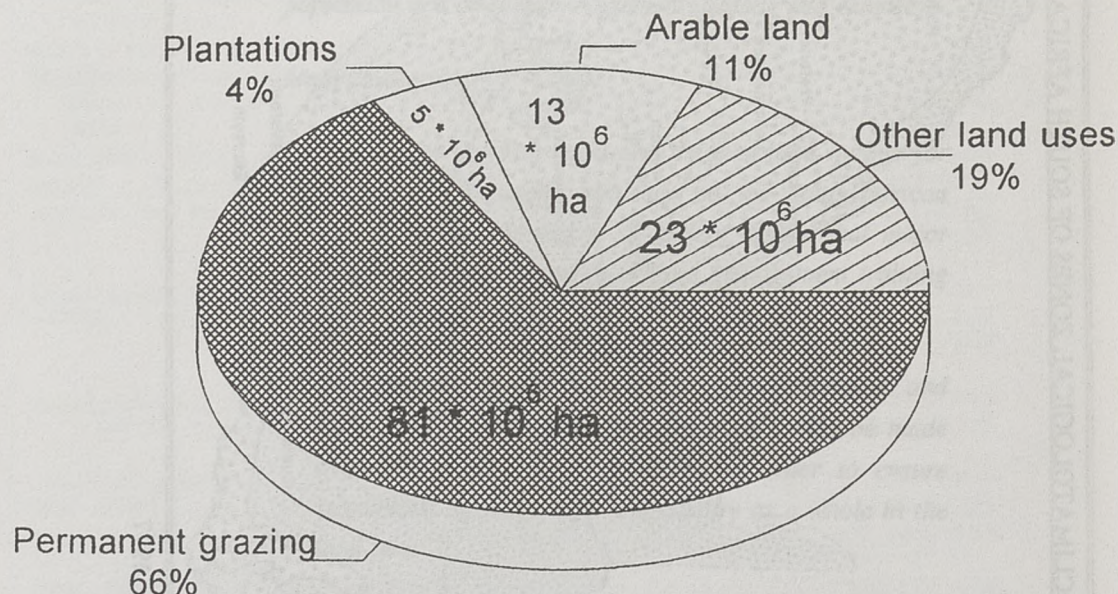
The aim of this paper is to highlight some of these changes and to show what effect they will probably have on the profile of the future farming population and on farm management training and extension. Some critical issues regarding the establishment of beginner farmers are also identified.

2. OVERVIEW OF CHANGES

As a background to the discussion the total surface area of South Africa, as well as land use, is indicated in Figure 1.

FIGURE 1. TOTAL AREA AND PERCENTAGE LAND USE

Total area = 122 million ha



Source : Spies, P.H. 1994.

1 hectare = 1,168 morgen = 2,471 acre

The bioclimatological zones of South Africa are presented in Figure 2.

Fifty per cent of the area is arid with an average annual rainfall of 500 mm or less and with an effectivity of 20% or less due to annual evaporation ($> 2\,500$ mm), 40% per cent is semi-arid with an average annual rainfall of 500 - 750 mm and with an effectivity of 20 - 50% and 10% per cent is sub humid with an annual rainfall of 750 - 1000 mm and an effectivity of $> 50\%$ (Bennie 1990 : 2).

The aridity index is calculated in Table 1.

TABLE 1 : ARIDITY INDEX OF SOUTH AFRICA

CLIMATIC ZONE	AREA	ANNUAL RAINFALL %	ANNUAL EVAPORATION mm	ARIDITY* INDEX mm
Arid	50	< 500	> 2 500	< 0,2
Semi-arid	40	500 - 750	2 500 - 1 500	0,2 - 0,5
Sub-humid	10	> 750	< 1 500	> 0,5

*Source: Unesco : 1977

These unfavourable climatic conditions compound the need for good quality farm management training and extension.

2.2 Changes in the economic environment

The following are examples of changes that have occurred in the economic environment. Most of these changes have put farmers' profit margins under pressure, and increased the financial risk.

- Interest rates on farming loans increased considerably during the early 1980s due to a change in monetary policy aimed at making the interest rates of the farming sector more market-related. The rates increased further as a result of the movement to a positive real interest rate system for the country. At present the prime interest rate is 17,75% and the positive real interest rate $\pm 8\%$.
- Rising interest rates together with severe droughts during 1983 to 1987 and again during 1994 /95 led to a considerable increase in farming debt.
- An oppressive price/cost squeeze continues.
- Devaluation of the local currency (rand) increased the price of all imported inputs and farm equipment.
- There is a movement towards a free-market system where farmers have to handle the marketing function themselves - the marketing function was handled by marketing boards in the past.
- In most areas the market value of land has increased to more than its productive value.
- Decreasing agricultural financial aid from the government emphasises the need for financial independence.

- Farm commodities were tariffed as a result of GATT agreements (Potgieter 1994:17). This more or less levelled the playground for farm produce between countries.
- Severe droughts put pressure on the country's economy and balance of payments as well as the growth rate.
- The lifting of sanctions together with a devaluated currency created new opportunities for South African farmers, such as exporting of agricultural equipment and produce.

2.3 Changes in the natural environment

- Severe droughts occurred during 1983 - 1987 and again during 1994/95. This not only increased the debt rate of farmers but also lowered the vegetation coverage and aggravated the erosion of agricultural land, especially in the arid and semi-arid areas which cover $\pm 90\%$ of the total surface area of South Africa (Figure 2).
- Water is a scarce natural resource in South Africa. The effect of the droughts during the 1980s was that water restrictions were imposed on irrigation farms. Irrigation water has also become increasingly brackish, which has a negative effect on the yield potential of irrigation crops.
- There is an increasing demand for sustainable use of the environment (e.g. the limited amount of quality water and arable land in South Africa) through agricultural management and production systems.

2.4 Changes in the agricultural political environment

- The abolishment of influx control to urban areas accelerated urbanisation (especially amongst the black population). This inter alia increased the demand for water for urban use; resulting less water available for irrigation farming.
- The new Government of National Unity that took over in April 1994 represented a shift of power from central government to decentralised regional governments. Each province must now formulate its own agricultural policy.
- Land reform:
 - Land is redistributed to those who need it but cannot afford it. The aim is to make the composition of the farming population more or less representative of the total population (Eckert 1994, (1)2:8). Thirty per cent (24,3 million hectares) of commercial agricultural land must be redistributed within five years (Spies 1994:12).

- Land restitution. In the sixties and seventies people were moved and resettled under the 'blackspot' programmes. This government has promised to restore the land involved in this action or to compensate the previous owners or their descendants financially. The area involved is estimated to be about 320 000 hectares (Spies 1994:11).
- According to the 1913 and 1936 Land-ownership Acts, 18 million hectares of land were allocated to the former homelands. These laws have now been repealed and according to the new Reconstruction and Development Programme (RDP) this area must be more than doubled to approximately 42 million hectares or 42% of the total surface area available to agriculture (Spies 1994:11).
- Labour:
 - At present 1 million or 12% of the 8 million people employed in the country's formal economy work in the commercial agricultural sector (Spies 1994:14).
 - Labour laws that will probably be passed soon and agricultural trade unions entering the agricultural sector will inter alia bring pressure to bear on personnel management. This will make farmers more vulnerable to strikes during critical stages of the production process.
 - The demand for minimum wages, which in most cases exceed productivity, can result in further deterioration of the financial position of farmers.
- Farmers, farm size, training and extension:
 - According to Eckert (1994:14), it is expected that the number of white commercial farms will decrease from 57 000 to approximately 48 000 within the next five years. A conservative estimate is that approximately 450 000 - 500 000 black and coloured farming households will be established as a result of restitution and redistribution within the next five years and that the number of farmers can increase tenfold.
 - Due to the increase in the number of farmers it is expected that the average size of farms will decrease dramatically and that the approach to agricultural extension and services will change drastically.

Consequently "The Draft White Paper on Agricultural Policy and Related Process" states that training and retraining programmes for extension officers and researchers, as well as for beginner farmers should be developed (Blignaut 1995:17) to assist these farmers in becoming commercial farmers.

The above-mentioned changes have increased the management demands made on contemporary farmers considerably and have changed the approach to farm management in South Africa. A need for the development of selective farm management systems for farmers at different levels has arisen as a result of these changes.

3. CENTRE FOR AGRICULTURAL MANAGEMENT AT THE UNIVERSITY OF THE ORANGE FREE STATE

The dramatic changes mentioned already, as well as a survey done by the Faculty of Agriculture of the University of the Orange Free State, among commercial farmers and employers of post-graduate students in agricultural management indicated a dire need for a centre for agricultural management. Therefore the Centre for Agricultural Management, which aims to equip farmers, agriculturists and agricultural advisers with management knowledge, techniques and skills, in order to ensure profitable and sustainable agricultural production through more effective management, was founded in the Faculty of Agriculture at the University of the Orange Free State. The chief objective was to establish the Centre in particular and the Faculty of Agricultural in general as an excellent source of farm management knowledge and training, both nationally and internationally.

In accordance with the viewpoint of Spedding (1979:19), the Centre uses the systems approach to farm management training (Figure 3) to ensure the disciplined use of existing departments in the Faculty of Agriculture.

4. PROFILE OF THE FUTURE FARMING POPULATION AND THEIR FARM MANAGEMENT TRAINING AND EXTENSION NEEDS

From the above-mentioned facts it is clear that structural changes are taking place in South African agriculture. In order to remain relevant, farm management advisers will have to adapt themselves to the needs of the different levels or categories of farmers. It is expected that within the next five years the composition of the South African farming community in respect of beginner, self-reliant, commercial and dynamic farmers will change considerably (Laubscher 1994, Blignaut 1994, Nell 1994:5).

Figure 3. SYSTEMS APPROACH TO EDUCATION IN AGRICULTURAL MANAGEMENT

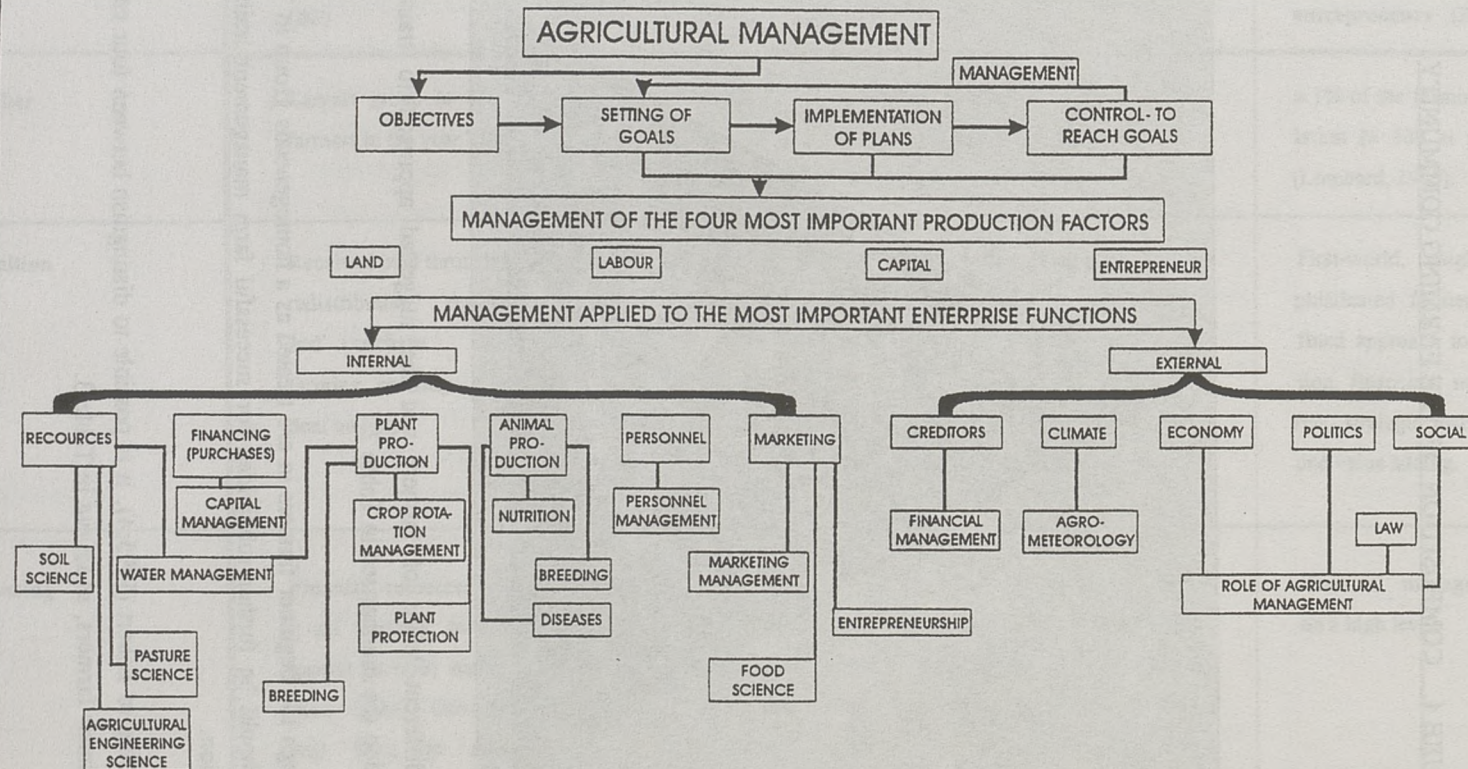
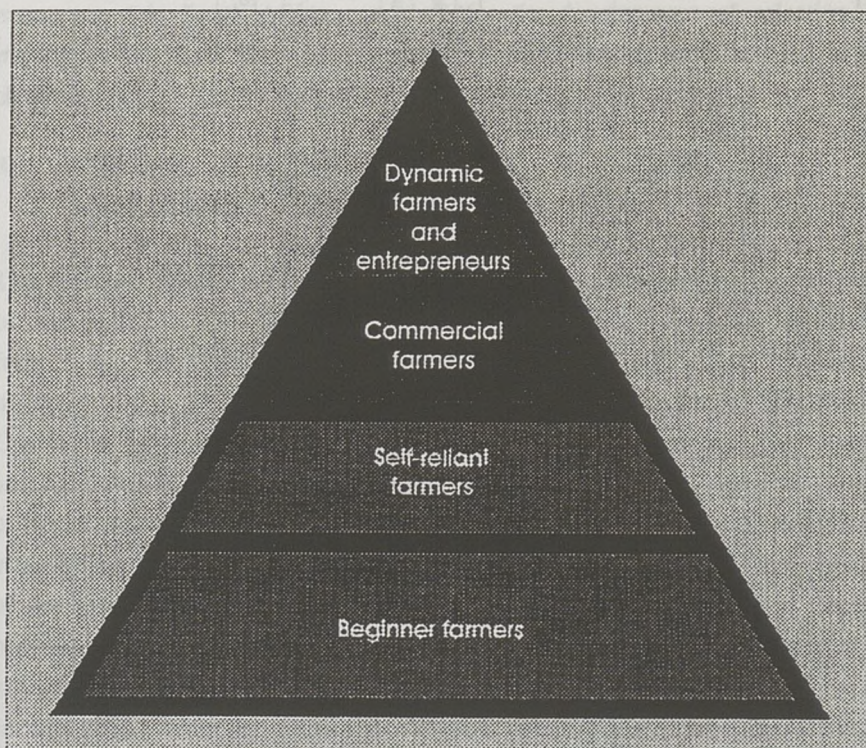


Figure 4 indicates the composition of the farming community (excluding subsistence farmers).

FIGURE 4. COMPOSITION OF THE FARMING COMMUNITY



The different levels of farmers and the suggested approach to training and extension are summarised in Table 2.

Although the beginner farmers in are treated as a homogeneous group in Table 2, they should be further subdivided for successful farm management training and extension.

According to Eckert (1995:4), it is possible to distinguish between four categories of beginner farmers, as set out in Table 3.

TABLE 2: PROFILE OF FARMERS AND THE SUGGESTED APPROACH TO TRAINING AND EXTENSION

	Beginner farmers (BF)	Self-reliant farmers (SF)	Commercial farmers (CF)	Dynamic farmers and entrepreneurs (DF)
Number	Largest group (\pm 450 000 farmers in the year 2 000).	Fewer than BF.	Fewer than SF (47 000 farmers in the year 2 000).	\pm 1% of the farming population (\pm 600 at present). (Lombard, 1995).
Definition	Received land through land redistribution, restitution and purchase. Started farming recently. Dependent on help.	Phase between BF and CF. Starting to generate profits and security. Know basics of farming and farm management.	Been farming for a considerable time in the majority of cases. Are more or less independent. Apply for government help only in case of disasters.	First-world, highly sophisticated farmers. Refined approach to production, financing, marketing, risk, strategic management and value adding.
Financing	Financial resources limited - no security to obtain capital in open market in most cases. Government will have to develop establishment programmes. Basic training in financial management, e.g. record keeping, essential. (Meyer, 1995).	First step towards independence - build security and establish own capital. Can apply for private loans in open money market. Commercial banks will offer loans and working capital to progressive farmers.	Almost all capital needed is obtained in open money markets. Financial management on a higher level than SF. Continuous attention to financial management as agriculture gets more sophisticated.	Financial management is on a high level.

Production	Scale of production will depend on availability of equipment. Experienced extension is crucial to guide farmers towards independence. Technical advice and extension on basic aspects of production are important.	Production becomes more economical. It is important to receive the correct guidance from people with applicable knowledge. (Kirsten, 1995:67).	Fully operational and production runs smoothly. Play major role in constant provision of agricultural products under normal conditions.	High level of production. Leaders in production of agricultural products. Maintain a high scientific level of production.
Marketing	Farmers are responsible for marketing most of their own products. These farmers do not have much bargaining power. Should join hands with organised agriculture. Independent marketing to level of local demand. Surplus will be marketed by contractors or through organised channels (Fisher, 1995:138). Agricultural co-operatives can help with marketing function.	Depends on size of total crop. Marketing function will still be fulfilled someone outside the farm. Products will be marketed independently to the level of local demand. (Fisher, 1995:138).	Mainly done by someone else on a contract basis. Some farmers will become more involved and start marketing their own products to a lesser or greater degree.	Most marketing is done by themselves. Value adding plays major role in marketing strategy.

<p>Training approach</p>	<p>Will depend on the subgroup (Table 3). The concept of a whole farm approach should be established first (Meyer, 1995). Most training should be done on informal farmer days. Extension officers should receive formal training at tertiary institutions. Institutions concerned should co-ordinate training and convey the same message to be effective. Quality of training, the will to develop and counselling will determine success. Sociologists have important role to play as they will have to inform these farmers about social forces and processes, utilisation and management of labour, responsibility to society, etc.</p>	<p>Expectation is that they will be conversant with basic aspects of farm management on a technical and financial level. Training should mainly comprise retraining and accompaniment by agricultural co-operatives and development corporations. Commercial banks should also become involved in financial management training on a selective basis.</p>	<p>Training in the technical and financial aspects of farm management mainly comprises retraining and accompaniment. Co-operatives, commercial banks, agents, consultants and organisations with training facilities will be involved in training and extension.</p>	<p>Management training and extension should be provided by educational institutions, specialist consultants, commercial banks and co-operatives. Training and extension should be aimed mainly at strategic repositioning.</p>
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TABLE 3: CATEGORIES OF BEGINNER FARMERS

Category	Full technical knowledge	Limited knowledge	Illiterate, vestigial or no knowledge	No agricultural knowledge but full managerial knowledge
Definition and background	Farm foreman, skilled farm workers of commercial and dynamic farmers. Former farmers.	Semi- or unskilled farm workers. Subsistence farmers. New farmers with tertiary education.	No farming experience. Most handicapped group. No previous links with agriculture.	Worked in non-farm enterprises. Have a certain amount of capital.
Skills	May have technical skills but limited managerial skills.	May have a knowledge of traditional farming techniques and technologies and theory of farming.	No farming knowledge or experience.	May have managerial experience but no technical experience.
Training	Mainly managerial. Subsistence farmers may need adapted technology to become CF.	Adapted technological, managerial skills in order to bring about transition from subsistence to modern technology, including systems approach.	Intensive training needed. Basic literacy, technical and managerial programmes in different states of development. (Meyer, 1995).	Mainly technical knowledge needed.

From the information in Tables 2 and 3 it can be deduced that farm management training and extension should be made available to all categories of farmers within a systems framework. The basic system should be the same for all levels, but different aspects of farm management should be accentuated. This will result in entrepreneurs being identified and developed at all levels, which will contribute to the development of agriculture as a whole. In the past almost all extension advice was aimed at the commercial farmer. It is of the utmost importance that extension services should be available to the whole spectrum of farmers to ensure sustainable agriculture in the long run. As indicated South Africa contains a large variety of types of farm land and some beginner farmers will diversify (cash crops and vegetables) from the start to decrease risk, while others will start off as specialised farmers (livestock), depending on where in South Africa they are settled. Establishment of such a large group of farmers as that projected for South Africa, must occur according to a carefully developed agricultural management system that includes all the disciplines indicated in Figure 3. This is important in order to ensure a high success rate, since a low success rate will have negative effects on the economy of South Africa, which is in a fragile state at present. In the RDP (RDP 1994:21) it is also very clearly stated that beginner farmers should not be established at the expense of existing commercial farmers.

5. IMPORTANT ISSUES FOR FARM MANAGEMENT ADVISERS WITH REGARD TO THE ESTABLISHMENT OF BEGINNER FARMERS

The establishment of beginner farmers will be one of the main issues on the agricultural agenda for at least the next decade. Farm management training and extension must play a major role in this process if a high success rate is to be achieved. Advisors involved in the process must be well equipped with knowledge of relevant issues. Aspects that need to be highlighted include the following:

The need for a systems approach

A systems approach to farm management (Figure 3) must be adopted in the settlement and development of farmers. A farm is wholly structured on interaction. Therefore the organisation and dynamics of the system must be identified. Different levels of farming organisations are not interlocking parts, but rather represent different viewpoints that require different approaches and skills (Osty 1993:361-362).

The importance of having a knowledge of the culture, value systems and aims of the beginner farmers

Another major factor in the establishment of farmers is their culture. The Southern African sees land as a social asset (Eckert 1994:2), not a productive asset. No country can afford to make 30% of the total land area available for agriculture if it is to be used as an unproductive social asset. Eckert (1995:5) underlines that, according to a survey done in Lesotho and Swaziland, the majority (75% - 85%) of households that receive land will not seek to become commercial farmers, but will rather continue as subsistence farmers who use the land only to supplement a larger and more stable external source of income. It will be the function of the farm management adviser to find out how these people think, to find ways and means to encourage them to become commercial farmers, to discover what their value systems are and to develop a farm management system on a participatory basis (Blignaut 1994). It is important to work according to the "bottom-up" principle. When developing a farm management system for beginner farmers it is essential to obtain their inputs. They must be made to feel that they have participated in the development phase in accordance with the viewpoint of Van Rooyen (1995:3).

In practice some farmers and communities are centrifugal or open communities (Gesellschaften) in which development is dynamic, while other farmers or communities are closed or centripetal (Gemeinschaften) and development is static or very slow (Blignaut 1972:82). It is essential that the farm management adviser should take this theory into account when developing farm management systems for farmers on the different levels. The nature of Southern African communities is more closed and they normally do not change their traditional way of farming or thinking easily (Van der Vliet 1974:212). It is therefore important to get farmers and communities involved in the development of a farm management system.

The role and responsibilities of the Government and beginner farmers

The Government will have to assist in the establishment of beginner farmers whether through financial aid or otherwise. Demand driven support systems will also play a major role during the establishment phase (Van Rooyen 1995:4, Wagner 1994:1).

Beginner farmers who did not inherit land must buy the land they receive. This will encourage them to develop themselves and become fully commercial. For the first few

years interest on loans should be lower than the current interest rate. These low interest rates can be increased to market-related rates over time as is done in Indonesia (Blignaut 1995). Farmers may be encouraged by means of incentives to repay more capital than required. The important aspect is that subsidies are out - assistance during the first few years is in! These farmers must be taught the basic skills of farming. This will help to achieve the major function of management, namely the integration of skills for a common purpose. (Dalton 1982:6). The common purpose in this case is to manage the natural resources of the farm in such a manner that production is sustainable in the long run.

The commercial farmer in the transition phase

In the RDP (Blignaut 1994) it is very clearly stated that beginner farmers should not be established at the expense of existing commercial farmers. The prime goal of any country is to be in a position to produce enough food for local consumption. Increasing agricultural production should be regarded as a priority matter equal to the redistribution of land (Eckert 1994:3).

Between 1988/89 and 1992/93 the gross value of agricultural production in South Africa averaged R22 295 million per year. (Abstract of Agricultural Statistics 1994:81). If 30 % of the agricultural land during this time is redistributed to beginner farmers who use the land as a social asset or will take five years to become commercial farmers, the total agricultural income can drop by R6 688 million per year. It is therefore important to develop a farm system that will encourage beginner farmers to become commercial farmers as soon as possible - preferably within a period of no more than five to seven years (Van der Westhuizen 1995).

In the Free State the local government's aim is to establish 3 500 beginner farmers within the next five years. The number of commercial farmers stood at 11 070 in 1991 (Abstract of Agricultural Statistics 1994:6).

The sympathy of the government lies with the beginner farmers and they are given the most assistance. The danger is that if extension neglects the commercial farmers in favour of the beginner farmers, the total agricultural income may fall substantially because the beginner farmers may take up to five years or more to become commercially viable. A healthy balance of farm management training and extension is very important in order to stabilise the total agricultural income during the redistribution and restitution phase. The Centre for Agricultural Management has the ability to address and attend to the different levels of education (formal, semi-formal

and informal). It also has the ability to train extension officers to assist the beginner farmers.

6. CONCLUSION

The changes that have already taken place and are still happening in South Africa are of such a nature that major adaptations must be made to farm management training and extension for it to be effective for the changing farming community.

The profile of farmers will change dramatically over the next couple of years, with beginner farmers becoming very important. Farm management training and extension must be available and supplied to all levels of farmers in order to ensure sustainable agriculture for the country as a whole in the long run.

In order to address the changes in the farming population and to ensure a high success rate with regard to the establishment of farmers, it is important that existing extension officers be retrained and new candidates trained in such a way that they will be able to accommodate these changes.

The University of the Orange Free State with its Centre for Agricultural Management is well geared to train farm management advisers. At present course material is being adapted to cater for the needs of advisers to beginner farmers.

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