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TEACHING MANAGEMENT INTO THE 21st CENTURY

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ABSTRACT

The effects of interactions between the changing global management environment, successful farm managers and farm management educators require urgent consideration if management education for farm management and agribusiness is to meet the challenges of the 21st Century. A paradigm shift in the way the global food and fibre system operates is placing new demands on farm managers and as a consequence significant changes in farm management education are required. Management education in the 21st Century will be driven by consumer demands for quality, value, accessibility, flexibility and relevance. Continuing rapid change will require educators and their organisations to be forward looking and responsive to emerging consumer needs. Competition between education providers will be intense and unless farm management educators develop the required capabilities potential clients will be lost to general management programs. Farm management educators who successfully respond to the changing demands will be part of an exciting new era with considerable opportunities in old and new learner markets.

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INTRODUCTION

The global food and fibre system is undergoing fundamental changes which are impacting on the business of farming. The effects are particularly felt by small businesses such as family farms. The key paradigm shift is from a production driven agri-industry system to a globalised market driven system. This change

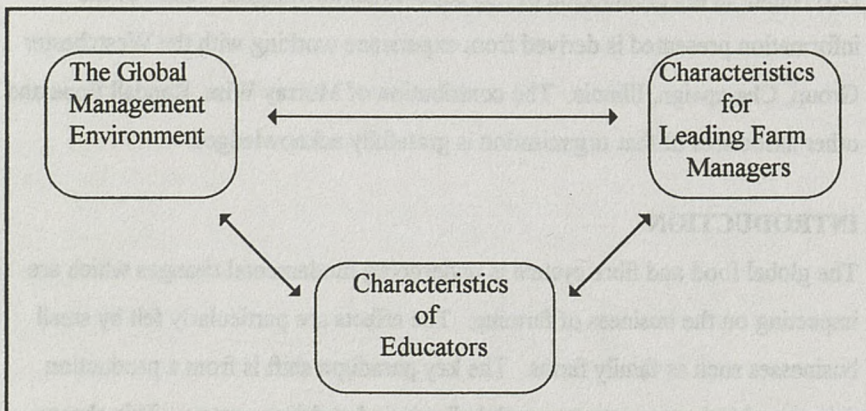
permanently alters the way in which the system operates and presents new challenges to farm managers and farm management educators.

This paper draws on the author's recent experience studying trends in farming and agribusiness in the USA, United Kingdom, New Zealand, France and Australia. This experience is combined with a long career in managing educational organisations and teaching farm management.

The focus is on farm management education for family farming in the context of the emerging new agriculture and agri-industry system. However, many of the requirements apply to all parts of the food and fibre system and indeed to most forms of management education.

The theme is depicted in Figure 1. The interaction of the global management environment and leading farm managers is influencing the characteristics required by farm management educators. An exciting new era for farm management educators is emerging, but major changes are required in their capabilities and the ways their organisations operate if competition is not to drive many farm management education providers to extinction.

Figure 1: Interactions Determining the Required Characteristics of Educators



GLOBAL TRENDS - THE EMERGING GLOBAL FARM MANAGEMENT ENVIRONMENT

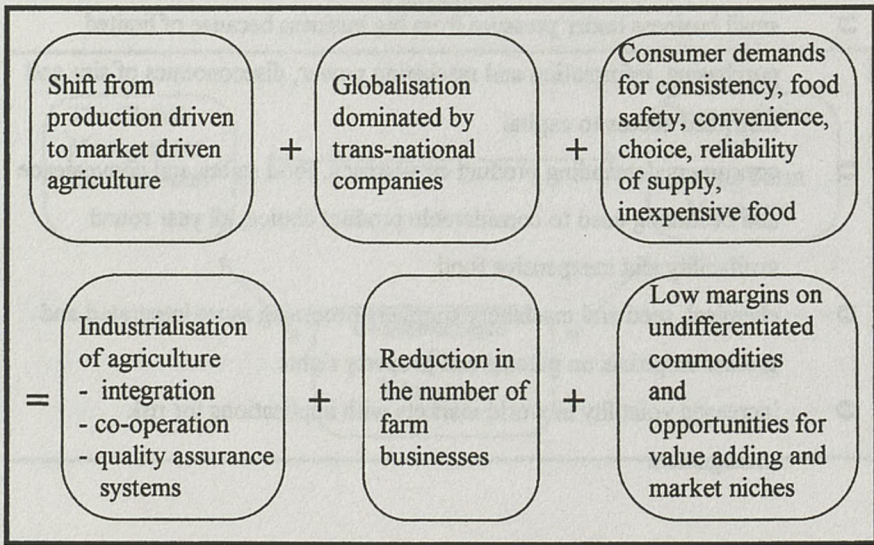
The key changes in the way the food and fibre system operates include (Napier 1997) -

- a major shift from traditional production driven agriculture to a market driven agriculture. This shift permanently alters the ways in which all parts of the food and fibre system operate
- smaller government and increased privatisation
- globalisation of agriculture. World trade in food and fibre products is increasing, aided by a transport and communication revolution and progressive lowering of trade barriers. Competition is increasing and often comes from unexpected sources. Every operator in the food and fibre system (including every farmer) is a global operator in the sense that competition is with the best in the world either on export markets or in competing with imports
- concentration of food processing in the hands of relatively few trans-national companies which require long lines of consistent, reliable, safe products
- a tendency to shorten the chain between consumer and producer with increased forward selling and direct marketing to processors or retailers by the larger producers
- small business under pressure from big business because of limited purchasing, information and marketing power, diseconomies of size and restricted access to capital
- consumers demanding product consistency, food safety and convenience and becoming used to considerable product choice, all year round availability and inexpensive food
- chemical, seed and machinery suppliers becoming more integrated and greater emphasis on patents and property rights
- increased volatility in world markets with implications for risk management

- industrialisation of agriculture with increased vertical integration, co-ordination and partnering. The emerging system is more dependent on relationships and co-operation (win/win) and less on adversarial (win/lose) arrangements
- ongoing environmental concerns and diet/health fears
- ongoing reduction in the number of farms and a steady increase in the size of commercial farms. There is an increase in the number of part-time farmers who rely on off-farm income
- margins on undifferentiated commodities will remain low requiring large volumes for viable production
- there is no doubt farming is now a business and part of an integrated system
- marketing is critical to success
- information is of increasing value
- the image of agriculture is declining.

The effects of these global trends on farm management are summarized in Figure 2.

Figure 2
The Effects of Global Trends on Farm Management



LIKELY CHARACTERISTICS OF LEADING FARM MANAGERS WHO RESPOND TO THE GLOBAL TRENDS

The review of global trends and analysis of many recent case studies in several countries lead to a number of conclusions regarding the likely characteristics of future successful farm managers and farm families (Napier 1996).

The conclusions are -

- ➔ **teamwork on and off farm** will be increasingly important for success. Farm managers who fail to motivate, adequately skill and fully employ all members of their workforce of both genders and all ages will be giving away potential competitive advantage. Teamwork off-farm in the form of greater co-operation between farms to increase purchasing, information and marketing power will also become more important to overcome the disadvantages of small business in the emerging world. Teamwork off-farm designed to achieve better linkages in the chain from consumers all the way back to producers will also be of vital importance to successful farming as agricultural industries become more market driven rather than production driven
- ➔ successful farm teams will be characterised by a set of **attitudes** in tune with the challenges of the emerging agribusiness system. These will include a willingness to manage change, a questioning of everything they do, ongoing commitment to development of the abilities of all members, including the women, courage to benchmark family business performance nationally and internationally, and acceptance of the rigours of global competition
- ➔ success in farming will require **excellence in technical production** backed by certified quality assurance programs. Rapid advances in technology will require close associations with research organisations including on-farm research skills
- ➔ successful farms will achieve economies of size, but there will be **no set size required for economic viability**. 'Get big or get out' has been a catch cry in recent times but the recipe for success is much more complex than this

- ➔ excellent **business control** will be a key characteristic to manage the volatility of farm production, input costs and product prices. This will include a range of risk management strategies
- ➔ top farm businesses will achieve excellence in **information gathering and analysis** and this will increasingly involve farmer and agribusiness networks domestically and internationally
- ➔ **marketing (including negotiation) skills** will be continually developed to keep pace with the changing demands of consumers. For many farm managers this will require considerable time input off-farm for one or more members of their teams in order to understand marketing requirements, develop relationships through the marketing chain and to integrate with other parts of the system
- ➔ the success of many farm businesses will rely on their ability to **value add** at least some of their production. Value adding will not always involve product processing. In some cases it will be achieved by attracting premium prices for quality or a tightly specified niche product, in others by direct marketing and may also be achieved by selecting the right time and consumers for particular products
- ➔ farm managers will seek **control** over production assets (although this may be shared with others) but will **not necessarily seek ownership** of all the assets
- ➔ farm families will develop high level **skills in working with other people** and in communication
- ➔ the **self confidence** of farm managers and team members will be critical to their perceived roles in the agribusiness system. The words 'I'm only a farmer' or 'I'm only a farmer's wife' will cease to be uttered
- ➔ successful farms will operate as a **business** while achieving personal, family and other goals
- ➔ top farm managers will be capable of **developing other business activities** such as contracting, consulting, research, information and

marketing services, retailing and farm tourism in conjunction with their farm business

- ➔ tactical and strategic **planning and clear goal setting** will be important for success
- ➔ farm plans will be **flexible** to respond to changing market demands
- ➔ farm operators will have good **knowledge of the total agribusiness system** and the role of their farm enterprise in that system
- ➔ successful farm managers will project an **image** of professional stewardship of the environment and concern for the well being of consumers
- ➔ farm managers and members of their teams will **continuously learn** at a range of levels using a wide range of approaches. Human resource development will be a budgeted activity with a time allocation in line with that of progressive non-farm businesses.

In order for the above characteristics to be developed, farm managers and their teams will need to learn in a range of ways some of which are depicted in Figure 3.

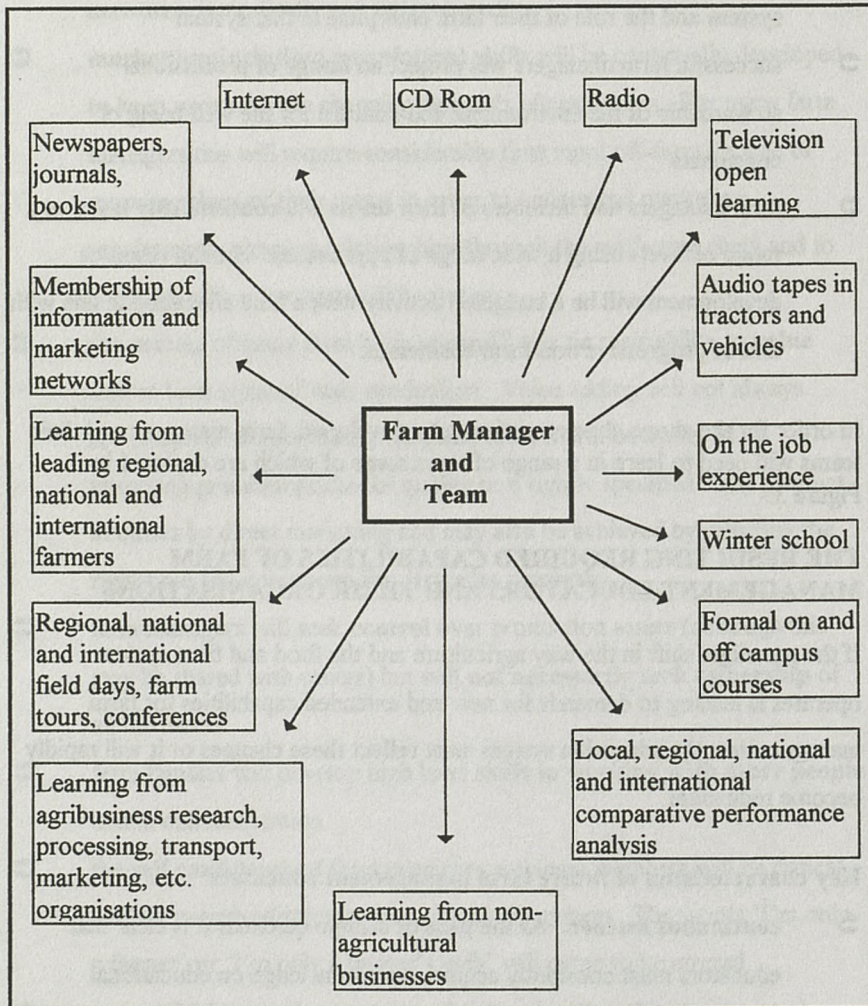
THE RESULTING REQUIRED CAPABILITIES OF FARM MANAGEMENT EDUCATORS AND THEIR ORGANISATIONS

If the paradigm shift in the way agriculture and the food and fibre system operates is leading to demands for new and extended capabilities for farm managers then the education system must reflect these changes or it will rapidly become redundant.

Key characteristics of future farm management educators

- ➔ **continuous learner.** As the pace of change quickens it is clear that educators must constantly acquire new knowledge on educational philosophies and techniques and industry developments if they are to be leaders and remain relevant to their clients. This learning must be increasingly goal and self driven, rather than being organisation driven

Figure 3: Part of The Smorgasbord of Learning Approaches Used by Leading Farm Businesses.



- ➔ **facilitator rather than 'sage on the stage'.** Farm management education (and many other subject areas) need to be increasingly learner centred rather than teacher centred (McCull et al, 1991 p xvii). This allows students to focus more on areas of learning important to them which improves 'ownership' of educational outcomes. This also more readily allows the existing knowledge of learners to be drawn upon
- ➔ **able to relate subject areas to the whole system.** Increasingly the value of knowledge relates to the way in which it can be applied to integrated systems. Many farm management challenges involve more than one academic discipline. Some science based courses, for example, require increased emphasis on management subjects (McCull et al, 1991 p xvii). Team teaching can help learners integrate subject areas
- ➔ **enthusiastic about change.** Leading farm management educators need to be enthusiastic and skilled change managers willing to tackle necessary cultural change (eg. the changing roles of women, ethnic communities), to seek opportunities from industry changes and to motivate their learners to be progressive change managers
- ➔ **strategic thinkers and planners.** The farm manager of the 21st Century is being fashioned now. Young people receiving training in 1997 may not achieve major management responsibility until beyond 2010. Unless management educators have the ability to anticipate their learners emerging needs they risk conducting irrelevant programs. Traditionally educators and educational organisations have been conservative and this has led to lack of responsiveness and a 'follower' rather than 'leader' image. They must now be increasingly forward looking and, in a highly competitive world, seek strategic advantage in the services they provide
- ➔ **tactical planners and operators.** It is not enough for farm management educators to be strategic thinkers and planners. They must also be able to implement program changes in a timely and high quality manner. Last year's materials will increasingly be outdated and bureaucratic and slow course change processes will be ineffective. Organisational and time

management skills are increasingly important to manage the pressures of change and achieve efficient and effective outcomes

- **in bed with industry, not in an ivory tower.** The future of farm management education lies in even closer liaison and partnerships between educators and industry. The farm management education system needs to be an integral part of industry, rather than a remotely linked service provider. In this way the changes in industry can be closely monitored, relationships and empathy with learner needs can be developed and learners can be exposed to a wide range of learning experiences. A major challenge for farm management educators (as with farm managers) is to be in close contact not only with farm production enterprises, but also input suppliers, food processors, transporters, marketers, retailers, etc. If farm managers need to become more broadly based agribusiness operators then the knowledge and networks of farm management educators must also be expanded accordingly
- **uses all appropriate educational techniques and technologies to aid client learning.** Learners are demanding greater accessibility, flexibility, cost effectiveness, choice and consistent quality in education programs (Brownhill et al, 1997, p23). The education industry is being transformed by technological change and the demands of education consumers. Figure 3 illustrates just some of the ways in which farm managers are learning including through some revolutionary technologies such as the Internet. Farm management educators who do not appropriately expand their repertoire of educational techniques risk losing out to competitors (who may be located anywhere in the world) who are prepared to do so
- **marketer of educational opportunities.** In a competitive world every farm management educator also needs to be a marketer of educational opportunities. Educators need to be assisted by publications and marketing campaigns which give potential learners a clear understanding of the outcomes and attributes of particular programs. Marketing of programs often needs to be extended to non-traditional client groups

such as women and ethnic communities and some urban based communities. The broadening roles of farm managers open up attractive careers for a wider range of people, a message that often does not reach many potential learners

- ➔ **team player and collaborator.** Successful farm management educators of the future will be willing to work in team situations with learners, with educators in their own organisation and increasingly with educators in other organisations. Co-operation to achieve learner relevance, cost effectiveness, quality, viable student numbers and subject breadth and depth parallels that required by farm managers who can no longer successfully adhere to a culture of independence
- ➔ **global citizen.** Farm management educators cannot afford to be insular in a highly competitive and globalised food and fibre system if their learners are not to be left vulnerable. They need to internationalise the learning materials they use and to be part of global farm manager, agribusiness and educator networks
- ➔ **humble.** There is no room for arrogance and 'prima donnas' in a complex and rapidly changing agribusiness system. Whilst striving for individual excellence, farm management educators need to be prepared to use expertise from a wide range of sources, including their learners. Most learners need to constantly access learning opportunities at a range of educational levels so that educators need to be prepared to operate at a range of levels or at least collaborate with educators across levels. Education is increasingly becoming 'seamless' with learners moving across levels previously presented as barriers
- ➔ **positive professional image.** The image of farm management educators will be critical to their ability to attract learners and perform well in the emerging competitive and complex environment. They need to present a professional image as educators but also of the industries they serve
- ➔ **constantly and fearlessly benchmark against the best management educators in the world.** Competition from both public and private providers and global accessibility by consumers require that farm

management educators regularly measure the quality and effectiveness of their programs against the best in the world

- ➔ **cost effective business manager.** Farm management educators will need to 'practice what they preach' in terms of business and human resource management skills if they are to help their organisations to remain competitive. In general governments around the world are moving more towards a user pays education system and educational organisations are needing to cut costs and also raise revenues from a range of non-government sources to survive. Many agricultural education organisations are based on high overhead cost structures with expensive 'bricks and mortar' facilities and large numbers of full-time tenured staff. Some emerging educational providers have low overhead cost structures using new technologies and drawing on a wide range of part-time expertise to achieve quality and cost efficiency. If traditional providers are to remain competitive their staff will need to adopt excellent business management practices and their organisational structures and cultures will need major change
- ➔ **market driven not product driven.** In keeping with the imperatives to which their clients must adhere, farm management educators must constantly research the needs and demands of their markets and be prepared to involve industry in curriculum design. Market research is often poor or virtually non-existent (McCull et al, 1991 p xvi) and in the past many educators have been allowed to pursue their interest areas at the expense of the real needs of their clients. With the consumers of agricultural education firmly in the driver's seat, educators who are not in tune with market needs and who are not prepared to constantly retrain themselves and modify their programs will be irrelevant
- ➔ **concentrate on giving learners 'non-perishable' capabilities.** Many traditional farm management programs have been largely content based with emphasis on the current 'recipes' for excellence. In a rapidly changing world learners require more emphasis on **processes** such as how to learn effectively, how to manage change, how to obtain and

analyse information and how to conduct effective research. Employers are more interested in the **generic skills** of applicants for positions than specific job related skills which may rapidly become outdated, [Fairnie et al (1988), Litzenberg and Schneider (1988) and Karpin et al (1995)]. So, farm management programs need to increase their focus on skills such as communication, managing self and others, teamwork, negotiation, marketing, systems management and tactical and strategic planning. Drastic redesign of many farm management curricula is necessary to meet the above requirements (Napier & Chudleigh, 1987)

- ➔ **facilitate educational pathways for learners.** Farm management educators need to be skilled at helping learners to obtain appropriate recognition of prior learning, articulation between programs, credit and advanced standing (Napier and Scott, 1994). Educational organisations must also be prepared to assist. Traditionally pre-requisites for certain subjects have been far too inflexible and many applicants for formal courses have received little recognition for significant learning they have achieved through short courses, work experience and other informal programs
- ➔ **facilitate student experience in industry.** The teaching of management, especially to young inexperienced learners, is a major educational challenge. It is often difficult for learners to understand commercial realities and the subtleties of management if their learning is confined to formal courses in educational organisations (McColl et al, 1991 p xv). Traditionally farm management educators have used institutional farms, conducted farm tours and required various periods of work experience on farms, either pre-entry or during courses. The industry experiences of students now need to be broadened to include exposure to not only farm businesses but also other parts of the agribusiness system. International experience is increasingly important and some benchmarking with industries other than agriculture is also desirable. Programs in which learners are required to undertake industry based projects also help students to understand the realities of

management and expand their networks of industry contacts. A side benefit for farm management educators who facilitate student experience in industry is that they are more likely to keep abreast of industry developments

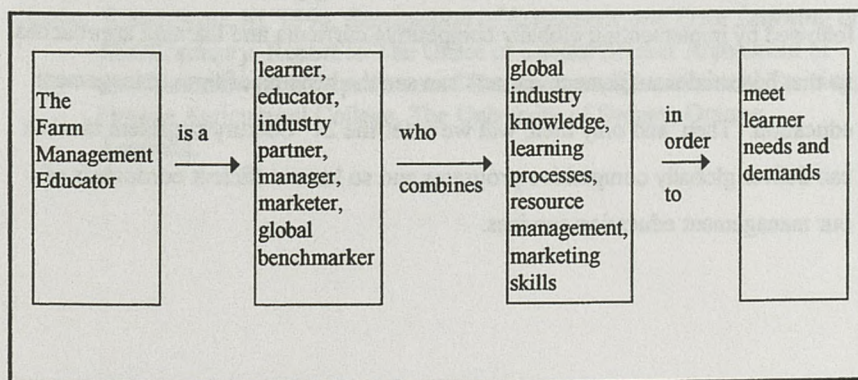
- ➔ **develop clear program objectives.** Many farm management programs do not have clearly stated and measurable outcomes which graduates are expected to achieve. These programs may consequently lack focus on market demands, standards may be difficult to maintain and integration of subject areas may be weak. There is much debate on whether programs should be entirely competency based or achieve more broadly based capabilities. As accountability to various stakeholders for the performance of educational programs increases successful farm management educators will regularly review and refine program objectives in conjunction with their learners and develop improved ways of measuring program outcomes
- ➔ **incorporate sustainable development concepts.** Widespread concerns regarding the ability of agricultural practices to sustain natural resources are likely to increase unless farm management programs devote substantial efforts to adequate learning in this area. The image of agriculture suffers from perceptions that many farm managers have inappropriate skills, knowledge and attitudes to achieve sustainable use of natural resources
- ➔ **adopt learning philosophies which integrate theory and practice.** As a further consequence of the complexity and rapid change of emerging agri-industry systems farm management educators need to adopt learning philosophies which impart theoretical knowledge, while at the same time linking this knowledge with applied situations. Practice can be used to further develop theoretical concepts and vice versa
- ➔ **encourage individuality and diversity.** If farm management educators are to help learners obtain maximum benefits from the opportunities associated with change then educators and their programs should encourage individuality, the questioning of paradigms and a diversity of

approaches to farm management. Historically the culture of many agricultural education organisations has been male dominated, tolerant only of fixed and narrow paradigms and focused largely on restricted industry norms. This has caused many potential learners from non-traditional backgrounds (women, ethnic communities, city communities, etc.) to regard these programs as unsuitable to their needs. It has also caused some organisations to retain narrow and outdated programs producing graduates ill-equipped to manage change and seize emerging opportunities.

The process by which farm management educators can combine the above characteristics to meet the needs and demands of farm managers in the new food and fibre system is depicted in Figure 4.

Figure 4

How Farm Management Educators Can Meet Emerging Learner Needs and Demands



CONCLUSION - AN EXCITING NEW ERA FOR FARM MANAGEMENT EDUCATORS

The paradigm shift in the way the global food and fibre system operates requires that winning farm managers in the 21st Century will need new knowledge, skills and attitudes. Unless farm management educators and their organisations respond quickly and dramatically to the changes, their services may be irrelevant to the top farm managers. Consumers of farm management education will have considerable choice and as with the consumers of agricultural products they will demand quality, value for money, reliability, accessibility and relevance to needs. Many of the management education needs of farmers and those in the agribusiness system will be similar to those of any managers and unless the agricultural education system is able to meet the competition, potential clients will be lost to general management programs. It is time for a paradigm shift in the system of agricultural education if, as with traditional family farms, the system is not to become an 'endangered species'.

For those farm management educators and organisations with the strategic planning ability to develop new visions in line with the new food and fibre system's needs there will be huge opportunities to explore challenging old and new learner markets. The visions will be the starting point but they must then be followed by implementing globally competitive curricula and learning approaches so that potential management learners can see the benefits of farm management education. Then, and only then, will we enter the 21st Century confident that we can deliver globally competitive programs and so have sufficient consumers of our management education services.

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CONCLUSION

The following conclusions are drawn from the study:

1. The study has shown that the use of the proposed method is effective in the treatment of the disease.
2. The results of the study are in agreement with those of other workers.
3. The study has shown that the use of the proposed method is safe and does not cause any side effects.
4. The study has shown that the use of the proposed method is simple and easy to perform.
5. The study has shown that the use of the proposed method is economical.