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Delving and Divining for Australian Farm Management Agenda: 1970-2010[1]

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Abstract

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Challenges and opportunities on and off the farm generate a changing agenda for farm business management and farm families in Australia's rural sector. National, state and regional interest in the contribution and connections of farming to agribusiness, the food sector and the economy, the environmental status of rural land and water and the welfare of farm families leads to public policies interfacing and interacting with private farm business interests.

Conceptualising farm businesses as mixes of 'management', 'resources' and 'family' aids appreciation of new structures and strategies, ties in with 'triple bottom line' thinking and reflects the shift from farm policy to an array of policies focussing on social, environment and economic aspects of contemporary life in rural and regional Australia. Farming's links to the domestic and international economy, the environment and regional economies and rural communities are illustrated as the basis of agenda review and search.

Selected issues on the agenda from 1970 are plotted and delved into with the aid of a new web based bibliography of Australian farm management, including the literature of the Australian Farm Management Society. Divining agenda towards 2010 is attempted. Some legends, leaders and champions of farm management in Australia are nominated.

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Introduction

The invitation from the Local Organising Committee (LOC) to present a paper to this conference on 'Agenda for the Twenty First Century: Farm Management' came with the suggestion that I review the agenda of Australian farm management of the past thirty years as a prelude to identifying the agenda for the first decade of the new millennium. The scope of the topic is vast, a point apparently appreciated by the committee in their seeking out three of us from different states to tackle it simultaneously.

I welcome the opportunity, coming as it does about a year after the amalgamation of Farm Management Society - Central South Australia with the Australian Agricultural and Resource Economics Society (AARES). The suggested period of review is also a period through which the Australian Farm Management Society (AFMS) was an active regional and national forum for information exchange and debate about farm management issues and networking among farmers and others with interests in farm management. AFMS was formed in 1973 and dissolved in 1997, along with its national branch structure.

The paper is in three parts. Firstly, the 'world' of farm management in Australia: definition, evolution and connections to the economy, the community and the environment. Collectively, changing contributions of the farm sector and connections to the non-farm sector give rise to the agenda of farm management .

Secondly, agenda, in retrospect and prospect: some delving into selected past issues that comprised the agenda of farm management from the early 1970s to the present and some divining of future agenda - my two bob's worth about what is likely to be and what ought to be on the farm management agenda into the twenty first century.

Finally, the principal factor in farm management, people: farm management is a people business. Some legends, leaders and champions of farm management in Australia are nominated, with bias to home state, South Australia, and state of origin, Victoria.

The 'World' of Farm Management in Australia

Evolution

In retrospect, the experience of the AFMS can be viewed as a unique, longitudinal social experiment. Fortunately, the society published its conference proceedings and other material throughout its life. The literature of the society is an indicator to the farm management agenda of the day; unique in its embrace of all industries, inclusion of women and mixture of farmer and non-farmer contributions about farming and issues affecting farming.

The decline and demise of the AFMS was partly due to the face of a decline in membership and an inflexible and costly magazine contract had been crushing the national finances, prompting the South Australian Branch to force the liquidation of the national body to preserve SA and other Branch assets. Most farming and service groups in rural Australia constantly experience ebb and flow in membership. Perhaps the final decline of AFMS simply reflected change in farmers' needs, where new groups rise and some groups fall by the wayside – evolution!

The changing agenda of farm management and farm family welfare certainly spawned new groups (eg Kondinin, Landcare, Women in Agriculture, Regional Development, Rural Counselling) and new industry conferences (eg Large Herds, Meat Profit, Lamb Convention). Other long-serving groups have successfully adapted to change (eg Agricultural Bureau and the Crop Science Society in South Australia). So, while the rise and fall of the AFMS could indicate a lapse in commitment to farm management as a discipline in Australia, a better interpretation is that the changing farm and community agenda has seen attention to farm management expanding from some new positions in some new directions.

In looking at past farm management agenda and for future agenda there is a need to bear in mind that economics is one dimension of the whole; there are also cultural and social, environmental, policy and political and legal and ethical dimensions, as in any business.

In addition to the farm men and women who practice farm management there are many non-farmers who provide private and public specialist farm business services - for example, consultants, bankers, agronomists, veterinarians, counsellors and educators. Legendary Victorian dairy extension officer, Jack Green, epitomised an era of government information extension to groups (AFMS, 1975; Australian Dairyfarmer, 2001). Networking in groups and societies is recognised to be a valuable source of information.

In the early seventies, farmers were ineligible to become members of the Farm Management Section of the Australian Institute of Agricultural Science, unless they held degrees. Few did. Frustration with that situation led some farmers and others to form the AFMS at Albury, NSW, in 1973.

In 1975 at Glenormiston, south west Victoria, at the second AFMS conference, I was alerted to the fact that even the fledgling AFMS, with open membership, was not meeting the needs of all with interests in farm management. In a conversation about AFMS with University of New England Lecturer in Agricultural Economics, Brian Hardaker, (supervisor of my Rural Science dissertation), Brian said that without the ability to contribute research papers he would not be participating in future AFMS conferences.

Mindful of this conversation I worked to make AFMS open not only to membership and participation but also to contribution of papers. By 1990 AFMS began to accept contributed papers at workshops and by 1997 contributed papers comprised the majority of conference papers, similar to this conference. The 1990 milestone sticks in my mind because only one contributed paper was accepted into the conference program; one by Venton Cook and myself (Cook and Ronan, 1990). Contributed, but not selected for presentation, was one by Brian Hardaker and one of his student researchers (Milham and Hardaker, 1990).

The 'world' of farm management in Australia has evolved considerably. While the AFMS strain of the species largely died out (a bit surviving in AARES) other strains with farm management traits have developed.

Definition

"Farm management: too holistic and human a process for partial economic analyses to take us very far."

John Dillon, 1978
Professor of Agricultural Economics
University of New England

The search for farm management agenda will be aided by an understanding of what farm management is. In the main, farmers are the only people who practice farm management (there are examples of 'farm-less farmers' in the USA). Many other people become involved in farm management via consulting, extension, education and training to list just some. A lot of the public knowledge about farm management in Australia has found outlet in groups referred to in the previous section.

At tertiary level education, aspects of farm management may be found in various faculties – agricultural or rural science, economics and agribusiness. However, it was agricultural economics that largely took on the challenge to explore its academic place and potential. Production economics has been at the core of curriculum. Founding Professor of Agricultural Economics at the University of New England, Jack Lewis, provides an interesting review about inter-faculty bonds and shared experiences between the innovative faculties of Rural Science and Agricultural Economics at the University of New England (UNE) during the sixties (Lewis in Ryan,1996).

A number of eminent Australian agricultural economists have focussed on farm management at some stage of their careers. In an AFMS Newsletter Dr Henry Schapper (Schapper, 1981) was emphatic that:

"Farm management is about the profitability of farmers' decisions."

He reiterated:

"farm management is the study of farm-business decision-making rules for profit maximisation."

Schapper's emphasis on profit-maximising was to differentiate from defining farm management in terms of the achievement of farmers' goals. Schapper was also enamoured with computer based linear programming as an aid for farmers to regularly identify their highest profit plan! Not that Schapper expected farmers to always implement the most profitable plan; simply that they should "know how much income they plan to forego by not following such a plan."[2]

WA Department of Agriculture's Mark Stevens (Cooper, personal communication) attempted a reconciliation of 'what is' and 'what ought to be' with his interpretation of farm management from the farmers perspective:

"Maximise farm profit in the long term while satisfying other personal and family goals."

Associate Professor of Food Science and Agribusiness at Melbourne University, Mr Bill Malcolm, in an engaging paper to the 44th AARES Annual Conference in Sydney reviewed some definitions and observations by others about farm management and farm management tools before rolling out some of his own practical observations on the topic (Malcolm, 2001):

[2] 'Risky Business', is an experiential learning tool developed from other linear programming work at the University of Western Australia by Dr Amir Abadi (now Touchstone Consulting) for farmers. Mike Krause is currently adapting Risky Business for use by South Australian Mallee farmers as part of the Mallee Sustainable Farming Systems program (Krause, 2002).

"…the essence of farm management economics is dealing with change and dynamics, strategically and tactically….." (Schultz, 1939);

"..deciding on and implementing change is what farm management is mostly about…" (Malcolm, 2001);

"..how to incorporate new technology profitably into the existing business organisation (Makeham, 1968);

"..how to be sufficiently flexible, mentally and financially, to adjust resource management to meet both changed economic circumstances and widely varying climatic conditions (Makeham, 1968);

"..many farm management techniques have been called but most have been found wanting" (Musgrave, 1976);

"farm management: too holistic and human a process for partial economic emphases to take us very far in farm management analyses (Dillon, 1978)

"..in a highly uncertain world, there is not much point in more and more elaborate analyses of farm decisions (Wright, 1983);

"..emphases on production economic estimation of resource productivities, on linear programming approaches ; on systems simulation and on utility analysis and formalised probability analysis had been of virtually no direct use (to) actual decision-making on farms (Malcolm, 1990);

"…the economic and financial forms of the whole farm, partial and cash flow budgets, using probabilistic ways of thinking or more precisely 'strengths of belief about likelihoods of outcomes' all allied to the power of the computer spreadsheet, were theoretically sound, were used to some extent and still had a big role to play in actual farm management decision analysis and decision-making (Malcolm, 1990);

"including farmers risk preferences in a formal way was less important to good decision analysis and achieving farmers goals than making sure that technical and dynamic aspects of such decisions are well represented in the models used in the analysis of the decisions." (Malcolm, 2001 re Pannel, Kingwell and others);

"..much work in farm management in Australia has been too narrowly method or technique oriented with the inherent problem of the technique defining the scope of the problem and the inquiry into it (Malcolm, 2001).

"Real progress in farm management depended upon farmers getting individual farm management advice by hiring farm management consultant services….Public agencies could not afford to provide the specialised attention to individual farm businesses required for effective farm management (Campbell, 1957 in Malcolm, 1993);

"If one believed the sum (of costs and returns) , the farmer would indeed be foolish not to plunge headlong into the proposal. But so often the sum does not portray the position as the farmer sees it….(Williams, 1958, in Malcolm, 1993).

"The major reason for the limited relevance of a good deal of academic work in farm management to (actual) farm management is probably to be found in the methodology. The basic production model leaves out most of the really important things for farm management, viz., the technology, the human element, the risk, the dynamics and time (Malcolm, 1993).

"…(it is) likely to be more useful over time to deal with important business choices and changes, even opportunistic decisions, in as thoughtful, orderly and structured way as time permits" (Malcolm, 2001).

In 1965, John Dillon (Dillon, 1965) saw recognition of farm management training and research as a pertinent element in Australia's economic development. Dillon saw "little risk in predicting the continued expansion of farm management as an academic and professional discipline." The forecast was on-track into the seventies. Since then farm management appears to have had an identity and demand crisis in academia, being restructured into broader rural and agribusiness courses.

While interstate around 1992 William Hughes invited me to detour to Armidale to discuss the inactive New England Branch. Giants in the faculty and the world of farm management, John Dillon and Jack Makeham, attended, Jack with his dog. The trio had all been speakers at AFMS conference (Hughes, 1975; Dillon, 1979; Makeham, 1975). I recall some disappointment that the local branch was not able to consider hosting another conference, as it had in 1983, and some consolation in the fact that other branches continued to fulfil the mission.

Roseworthy Agricultural College Farm Management Lecturer, Ken Leske saw farm management and extension as twins, though not identical (Leske, 1983).

Competitive neutrality principles and the downsizing of government extension services saw the rise of private farm management consultancy and the convergence of Leske's twins into integrated farm services in most industries by the mid-nineties. There may be less farm management economists in Australia today but there are many others who have farm business management in their tool kit, including private and government consultants, agribusiness bankers and rural counsellors.

Today's closest substitutes for AFMS farm management forums are industry forums, such as Meat and Livestock Australia Meat Profit Days, Dairy Industry Large Herds Conference, National Lamb Industry Convention. Some specialised forums also pick up aspects of farm management: environmental forums, such as Landcare Conferences, and Women in Agriculture Conferences and the extension forum, Asia Pacific Extension Network.

The rise of the research and development corporations in the early nineties, with government and farmer levy funding, shifted the agenda from voluntary self-help to compulsory self-help, competitive with the role of AFMS. From having no outlets for their interest in farm management, farmers in major industries were funding their own new organisations and forums. It was inevitable that fewer farmers would be willing to pay twice for a similar product.

While some farm business training continues, particularly at university regional campuses, the real growth in funding and training has been in favour of practicing farmers through TAFE courses, Property Management Planning and Farmbis. Competency based curriculum emphasise knowledge and techniques of proven, practical value to decision makers, with FarmBis enabling farm group empowerment in choice of available courses.

Cooper (2001, personal communication) quotes UK Farm Management Lecturer, Tony Giles, who put a different twist on the definition of farm management by declaring that "there is no such subject as farm management, only management applied to farming" (Giles, 1991).

In contrast to the difficulties that academia has had with the holistic and human nature of farm management, farmers have had no such difficulty. When farmers have spoken at AFMS and other conferences about their farm business most focus on how, what and why they decided to do what they did. For example, Hahndorf jam-maker, Grant Paech, explained his success to a 2001 SA Dairyfarmers Association conference in terms of spotting opportunities and incremental development (Paech, 2001).

A recent analysis of how Australian farmers actually manage their business, outlining the type and extent of planning on broadacre and dairy farms is provided by Tanewski et al. (2000).

Outlining the market approach of Australian agriculture at an international seminar on agricultural finances, then Department of Primary Industries and Energy's Noel Beynon (1997) observed that :

> "We have increasingly come to understand that the real driver of profitability is managerial expertise and that management skills in Australian agriculture have tended to concentrate on the production processes of the business rather than the management issues such as finances, business structure and strategic planning, including succession planning."

As with business generally, the farm agenda has shifted beyond profit and economics to include ethical practice and environmental sensitivity. The above review of definitional aspects of farm management leads me to a blended definition of 'what is' and 'what ought to be.' Successful and responsible farm management typically involves some or all of the following:

- profit driven, well informed and timely decision-making;
- innovative, productivity enhancing, incremental, sustainable developments;
- documented business planning;
- risk spreading by off-farm income from investments and/or employment;
- environmental awareness, and
- on-going training and personal development.

There is no straightforward transfer of theory to practice - management involves knowledge, judgement and acquirable skills. Many academic efforts at theory development have had little impact at farm level. In contrast, focussed industry forums and group training continue to be popular, meeting the needs of farmers and advancing the discipline in the most practical way.

Connections

While much of the action is behind the farm gate, much of the agenda of farm management is beyond the farm gate. Farmers have a 'no-fences' approach to business. They are interested in information from any source about anything that is consistent with their business, family and personal goals. Their strategies and tactics embrace technology adoption, enterprise diversification or specialisation and earning income from off-farm investments and employment. They are acutely aware that business is risky and their strategies and tactics routinely consider risk, to the point where many are labelled conservative.

Over many years, farmer speakers at AFMS conferences and farm tours indicated that long-term wealth building, succession, environmental sustainability, farm family welfare and rural community vibrancy were all on the agenda. The scope of the programs consistently extended beyond economics and into social and environment issues, making for interesting comparison with the 'triple bottom line' [3].

The AFMS 'experiment' was built on the idea that farmers value the opportunity to learn about 'farm management' by watching and talking about what successful managers of other farms and farm related businesses do. AFMS Conference themes are indicative of the scope of the agenda of farm management in recent decades (Appendix 1).

As a surrogate for the agenda of Australian farm managers, categorisation of the content of AFMS conferences reveals a 'triple bottom line' agenda - social, environmental and economic - well before the concept was formalised (Figure 1).

Paradoxes

There are some paradoxes within the farm sector which are a puzzle and a source of farm business, farm family and farm management issues:

The 'growth/decline' paradox:

- declining terms of trade of the farm sector;
- absolute sectoral growth but relative decline in the economy at large, and
- shrinkage in the number of commercial farms and farm managers.

The 'sunrise/sunset' paradox:

- perceived to be a mature 'sunset' industry sector;
- sector keeps spawning new enterprises and industries, and
- excellent absorber of productivity enhancing technology.

The 'public/private' paradox:

- increased pressure of farming on the environment,
- increased focus of the farming community on the environment, and
- increased public intervention in farm practice.

The 'top and tail' paradox:

- greater productivity generally but excellent business performance confined to a minority of farms and farm managers;
- indifferent performance for extended periods by a middle majority of farm businesses,
- lagged adjustment of the sector as a whole, with farm family and rural community welfare challenges for many regions and intermittent crises in some regions and industries at some times.

[3] The inventor of the term, triple bottom line is John Elkington, chairman of strategy consultants, SustainAbility. For detail about triple bottom line see Elkington, 1997, Cannibals with forks: the triple bottom line of 21st century business, Capstone, United Kingdom.

Contributions

The important contributions of the farm sector to the Australian economy and the community at large are relevant to an objective appreciation of farm management and its agenda, but not always appreciated

The McColl report (McColl et al. 1997) collated a helpful overview of the farm sector during the past several decades:

- the volume of farm production has been increasing, on average, by about 2.2 percent per annum during the past fifty years;
- the real value of farm production and exports fluctuates, but has held reasonably constant through the past thirty years;
- the farm sector share of export value and gross domestic product has been declining during the past thirty years;
- the number of farms has been declining by about 1 percent a year during the past twenty years;
- there has been a long term upward trend of about 0.4 percent per year in employment on Australia's farms;
- larger farms show significantly greater increases in productivity over the long run than small and medium sized broadacre farms;
- the sample average showed small and medium size broadacre farms incurred losses for much of the nineties, whereas larger farms continued to trade profitably.

Several of these trends are illustrated in Figures 1 to 5. A classic example of structural change is provided by the dairy industry, where farm numbers have halved during the past thirty years, milk production has doubled and real incomes have been maintained by increasing farm sizes, herd sizes and productivity (ABARE, 2002).

The value of farm outputs comes from several sources. Farm commodities contribute about $30 billion per year, on-farm processed food and wine about $1 billion and farm tourism about $1 billion. Commodities are processed into about $100 billion of food, fibre and wine. About $30 billion of food and wine is exported and about $6 billion of food and wine is imported. The food and wine sector contributes about 16 percent of gross domestic product and 25 percent of export value; in South Australia food and wine exports account for about 40 percent of export value (Cook, 2002).

So, the farm management achievements of about 100,000 farmers indirectly contributes to significant economic activity in the Australian economy. About 20,000 of these farmers contribute the bulk of the production in most primary industries.

Farm System

Figure 2 is an holistic representation of farm management in the context of regional, national and international economies, the environment and rural communities. Inspiration for this model stems from my initial studies in Rural Science at the University of New England and the holistic approach to agricultural systems of founding professor, G L (Bill) McClymont (McClymont, 1970, 1996). McClymont likened his system to a perpetual pentagram. My model is more like a footy oval!

The model separates farm management, farm resources and farm family and shows their connections to regional, national and international economies, to the environment and to the rural community. The model is a system with traditional inputs and outputs including traditional commodities. On-farm value adding, tourism and biodiversity are outputs of emerging importance on some farms.

The model builds on the ideas of others. Hugh Wynter developed the triangle of resources concept (Wynter, 1975). Geoff Tually saw the merit of separating the farm business from the farm family (Tually, 1997). Importantly, by emphasising the context and connections of farm management the field of search for the agenda of farm management is broadened to where much of it stems from - beyond the farm gate.

Delving and Divining for Australian Farm Management Agenda

Delving and Divining

Searching for the agenda of farm management has similarities to water divining. We believe that farm business and management is important to our welfare and our environment into the future. So, we should focus on it. We know that we cannot precisely read the detail of the issues. But past experience and an assembly of relevant current information may give us an edge in preparation above no thought or preparation. Some things will be seen to be more important than others.

We know that information is valuable to people who know what it means. Some people get onto what is important sooner than others and put themselves in a better position to take advantage of opportunities or to guard against adversity

Information and Decision Making

Apparently the Greek philosopher, Plato, was concerned that use of pen and parchment could adversely affect memory. Plato would have been impressed with the economy in use of pen and paper by legendary lecturer in Farm Management at UNE and co-author of *The Farming Game* and its successor, *The Farming Game Now*, the late Jack Makeham, whose philosophy was very much of the 'keep it simple' school of thought (Makeham and Malcolm, 1993). During farm visits, well prior to hand-held calculators and computers, Jack would encourage students without foolscap folders to tackle a partial budget with a biro on the back of a matchbox!

Probing the realistic choices of the present position, identifying the key variables and keeping the arithmetic simple was the essence. Which leads me to a farm management agenda item of perennial interest: the private and public quest for improving farm performance via farmer training and better management of information.

Bookkeeping has been core activity for managing business financial information for generations. Some farm record books have become family and community heritage items. Drought and the wool crisis in the late sixties and the availability of regional reception of television enabled Western Australia's Dr Henry Schapper to help shift the agenda from recording to budgeting with a teaching series on ABC-TV in 1972.

Expansion of regionally based extension services, including district economists, were strategies for better meeting farmers' information needs. Soon after the unexpected 1974 cattle price crash I was at the Victorian Department of Agriculture's District Office in Warragul, West Gippsland, teaching farmer groups Financial Management Planning with a new manual and teaching guide. A new feed management system, grass budgeting, introduced from New Zealand, was also on the uptake with farmer groups.

This was an era when a lot of farm records were kept in shoe boxes. Basic and simple physical and financial management tools were very popular with farmers. Commitment to group extension led to contemporary programs such as the Victorian Department of Natural Resources and Environment's (DNRE) Target 10.

By the late seventies TAFE entered the scene and took over responsibility for adult education, offering farmers expanded training opportunities. This was a significant shift in the training agenda. The 'clever country' agenda of the late eighties began to penetrate rural sector training in the mid-nineties (Cameron and Chamala, 1997). Sue Kilpatrick, in a report to the NFF (Kilpatrick, 1996a) and a paper to AFMS 22nd national conference at Launceston in her home state of Tasmania (Kilpatrick, 1996b) was exploring the correlation between education, training and farm performance.

The advent of computers in the mid-eighties saw an explosion of gross margin (GM) analysis booklets from regional offices as the ability to do sensitivity analysis, break-even calculations and whole farm budgets became easy. At last it was possible to provide farmers with fact sheets and booklets full of example analyses and templates for their personal use with the aid of desk and hand-held calculators.

While spreadsheets were the 'in-tool' and gross margins were the staple product of the decade the abundance of information and metric power failed to stop farmers from being drawn into the new web being spun by the banking sector in their post-deregulation battle for market share. Investment appraisal optimism, aided by spreadsheet analyses, mixed with drought and falling commodity prices resulted in the widespread farm crisis from the late-eighties to the mid-nineties.

It took until the nineties before half of Australia's farmers were equipped with their own computers to do their own analyses (Garnaut and Rasheed, 1998). In 1997, Neville Hall (Hall, 1997) was still warning about the limitations of gross margin enterprise analysis at the 23rd and final AFMS national conference at Toowoomba in Queensland.

The McColl report illustrated the options for continuous learning by farmers (McColl, 1997, p. 122). Training has since been shifting from government service delivery (e.g. Property Management Planning - PMP; see Squires, 1997) to government cost-sharing with individual course participants (ie Farm Business Improvement Scheme -FarmBIS).

1990s computer power and farm pressures saw the emergence of key performance indicators, benchmarking and balanced scorecarding (widely used in non-farm business) actively extended to farm business in Australia (Worsley and Gardner, 2000; Shadbolt and Rawlings, 2000). NSW Agriculture's Alison Worsley and Mark Gardner surveyed and reviewed benchmarking services, without attempting to technically evaluate the products. They concluded that the most effective programs involved on-farm contact with farmers.

Melbourne University's Alexandria Ferris and Bill Malcolm (2001) found methodology problems in one of the most widely used benchmarking systems. Malcolm has consistently expressed the view that today's benchmarking is little different to 1960s comparative analysis, while acknowledging that there is no problem with enterprise unit cost analyses (Malcolm, personal communication). Fraser and Hone (2001) joined the debate with their study of farm efficiency in south west Victoria, supporting Ferris and Malcolm's scepticism about the role of benchmarking in agriculture.

University of Adelaide's Ian Cooper detailed differences between 1960s comparative analysis and 1990s benchmarking, observing peer support for benchmarking in the United States (Cooper, 1995). The McColl report saw benchmarking as one of a number of tools that farm managers could refer to in assessing their performance (McColl et al; 1997).

FarmStats Australia's Gordon Cleary and I presented the view that the best way to tackle the proliferation of benchmarking with flaws is to encourage discrimination between 'best practice' benchmarking and other systems, identifying differentiating criteria (Ronan and Cleary, 2000).

The vision that farmers should run their own race without reference to production possibilities or the performance of others is unrealistic. Farmer groups are quite skilled in planning on-farm research, such as paired paddocks, sustainable grazing systems and other producer initiated research and development studies.

Inter-farm comparisons of whole farm financials are a nonsense. But process or activity productivity and unit cost comparison in competitive industries with like enterprises is not irrelevant. If farmers are not pushing productivity potential with reference to competitors via benchmarking they are likely to be obtaining similar information via consultants.

This is not to suggest that benchmarking is a substitute for production economic and whole farm analysis of change; simply that it has a place in the toolkit as it does in most other businesses where like processes or enterprises exist in competitive industries. What should be on the agenda of farm management into the twenty-first century is a sorting of the wheat from the chaff with respect to benchmarking and other management aids.

Farmer decision-support systems are also on the agenda. Dr Roy Murray-Prior's research shows the potential value of getting close to farmer's in their management of strategically important decisions involving complex information (Murray-Prior, 1997).

Integrating physical and financial information in a structure and format aiding analysis and diagnosis; systems that can be used routinely and effectively is also a challenging area. Queensland Department of Primary Industries Officers, Paull and O'Sullivan (1997) illustration of an array of tools for better management of climatic risk is one example. Cleary and Angelino's (2001, personal communication) development of dairy decision-support software is another. A third example is recent work at the Cooperative Research Centre for sugar where economic and environmental values are integrated (Walquist, 2001). Systems based software is integrating and condensing complex information into practical tools for farm managers.

Managing Succession

Prior to and into the 1970s death duties constituted one of the greatest risks facing people on the land (Black and Neilson, 2000). Harris *et al.* (1974) observed that farmers comprised 4.6 percent of the income tax population, but paid 29 percent of Federal estate duties in 1971-72. The authors also noted that state probate and succession duties were usually greater than Federal estate duty and “on the lower range of estate values, often more than double federal duty for estates of similar value.” There was evidence which pointed to the regressive and iniquitous effects of the tax, with wealthier families avoiding the tax more effectively through their better access to and ability to pay for legal advice. Black and Neilson (2000, p. 65) referred to the tax laws at the time as ‘rapacious’ and explained how some farms were formed into

companies so that any rise in property value would accrue to the children rather than augment the dutiable estate of the parents.

By the mid-seventies the threat of death duties to the future of the family farm was reflected in the extension effort in all states. In Gippsland I was involved in organising Department of Agriculture seminars on “Keeping the Farm in the Family”.

Perhaps as an attraction to the flight of Victorian people and capital to the north, perhaps because he was a farmer and resented the impact of the tax, on the 31st of December, 1976, Queensland Premier Joh Bjelke Peterson abolished succession and gift duties in Queensland. Other Premiers and Prime Minister Fraser followed. Interestingly, the Queensland Office of State Revenue is still processing unpaid tax from the estates of people who died in the 1920s (Potter, 2002).

Succession, retirement and estate planning are still very much on the agenda post death duties (Neilson, 1986; Black and Neilson, 2000). In 1986 at the Bendigo AFMS national conference a paper was presented about the loss of a family farm after the death of a son in partnership, the widow needing to take her share of the property. This story attracted the attention of Melbourne University's Geoff Tually who proceeded to develop teaching and extension material to help farmers with succession planning (Bailey, 2001).

Tually presented his work to AFMS in 1997 (Tually, 1997a; Tually, 1997b). With others, University of Western Sydney's Dennis Gamble has also made a significant contribution to succession and retirement planning, conducting workshops in South Australia and other states (Gamble, 2001).

Tanewski et al. (2001) found that most farm business planning is driven by lender requirements and that while there are gaps in strategic and succession planning at all levels smaller farmers show the greatest deficiencies:

> "…economically marginal farms are less sophisticated in their strategic, operational and succession planning endeavours;
>
> "….succession planning is going to be a crucial issue as a larger proportion of owners will be at retirement age over the next thirteen years" (p. 60).

The National Farmers' Federation (NFF) retain succession planning as a policy priority. They were successful in deflecting recent policy ideas to tax discretionary trusts. Black and Neilson (2000, p. 66) explained that it is becoming common to insulate the farm from the risk of business failure (including marriage failure and consequent litigation) by separating the trust running the business from the trust owning the property.

Marketing Mismanagement and Management

South Australian farmer, politician, bush economist and author of *Economics Made Easy* and ‘modest’ farming legend, Bert Kelly, was one who constantly warned those who would listen to market forecasters that the person who had the ability to foretell the future would be in the south of France with their feet in a bucket of champagne! If they had met, Kelly and marketing guru of PBL (what’s this) fame, Bob Pritchard, and author *of Complex Marketing Made Simple,* may have agreed that farming is not easy, but should not be made any more difficult than necessary by inefficient marketing.

Kelly played an evangelical role in tariff reform. Pritchard used humour as part of his confrontation of the Australian pork industry about the glaring need to restructure its organisations and marketing strategy at a risk management workshop during the 1998 pork crisis.[4] Both would have been disappointed with some of the rural marketing policies pursued during the past thirty years.

With significant export dependence in most major primary industries the fortunes of the Australian farm sector are most strongly influenced by the climate of international trade. Notwithstanding, some of the biggest farm management problems during the past several decades have resulted from ‘Australian made’ marketing policies and strategies which have distorted markets and misled farmers, severely affected the viability of many farm businesses and the welfare of many farm families.

[4] See Ronan, G., Langberg, J. and Moore, M. 2001, for a more detailed account of the evolution of the pork industry export strategy.

Wool Industry Stockpile

> *"..politics took over comprehensively from clear economic policy advice on wool marketing in the past 50 years and woolgrowers paid a high price for this. The idea of integrated marketing including an export monopoly, a buffer stock scheme and coordinated promotion of R&D, collectively a strong interventionist philosophy, has waxed and waned. Having borne most of the costs of these failed policies, remaining woolgrowers can now look forward to a market less distorted by political interference."*
>
> Bob Richardson, 2001a

One of the biggest marketing disasters was that of the wool industry, where the wool reserve price scheme went into melt-down when it came into conflict with world market forces. Having no capacity to adjust, it accumulated a stockpile of wool which was finally disposed of late in 2001 after a decade of selling. The stockpile and the fixed release policy probably cost woolgrowers hundreds of millions of dollars (Richardson, 2001a, p112).

Many ended up in financial difficulty, seeking help from rural counsellors; some lost their farms. Woolgrowers have cut the size of the Australian flock by about 80 million sheep to about 113 million head. Richardson (2001b) outlined a number of lessons that could be learnt from the wool stockpile disaster. A general lesson for all rural industries would appear to be that market interventions by government are fraught with hazard and, except for reasons of food safety and disease, should be kept off the farm agenda.

Dairy Industry and National Competition Policy

> *"The idea of state governments attaching the milking machines to consumers' pockets and siphoning the proceeds to dairy farmers is an apt metaphor for longstanding market milk policies in each state."*
>
> *"Far from being a competitive industry, the dairy industry has long been one of the most highly regulated and assisted industries in Australia. In 1997/98 the average effective rate of assistance for manufacturing milk was 21% and for market milk it was in excess of 200%. The corresponding average effective rate for the entire agricultural sector was 10% (Productivity Commission, 1999, p4).*
>
> Geoff Edwards (2000)

State governments in NSW and Victoria put food security on the agenda during 1940s when they enabled the dairy industry to introduce milk quotas to assure supply to Melbourne and Sydney. This split the industry into those with city milk quotas and those with greater dependence on the manufacturing sector and exports. When Britain joined the Common Market in the late fifties suppliers of milk for manufacturing lost their major export market for butter. The industry commenced to build new markets, including cheese to Japan. The switch to delivery of wholemilk saw refrigerated milk tankers and on-farm bulk milk vats replacing cream (for butter) in cans in Victoria during the sixties.

Despite the technological progress milk quotas continued to regulate supply to capital city milk markets in both Victoria and NSW. The NSW/Victorian 'milk wars' of 1968 –1975 required two High Court actions to confirm free trade in Albury/Wodonga and the border region. Response to the first outbreak of competition at the border was to further regulate the market and for the companies to swap customers to realign the market at the border (Jones, 1997).

Without quotas for the Melbourne or Sydney market most Victorian dairyfarmers remained dependent on the manufacturing milk market with the Europeans corrupting the world market with subsidies and 'butter mountains.'

In the Victorian Department of Agriculture, Dairy Division Chief, Ian Howey, and Economist, Michael Taylor, (now Secretary, AFFA) were specialists in analysing the many marketing arrangements and the plethora of inquiries and schemes which adjusted the system without fully reforming it (Ronan, 1976). Following a price slump in the mid-seventies Victoria addressed the inequity of its own marketing regulations by phasing out milk quotas over ten years, with a cash compensation option. In the heart of quota country at Warragul Victorian Department of Agriculture staff worked on an extension project, 'Cash It or Keep It' to assist quota holders assess their options.

National Competition Policy (NCP) shifted the agenda for the marketing of farm products in Australia. In the lead up to deregulation Geoff Edwards described the monopolistic milk policies and pricing in Victoria and NSW in his 'tale of two states' paper to AARES 2000 (Edwards, 2000). The average income transfer from consumers to producers was about $30,000 per dairyfarmer. By the 1990s many NSW dairyfarmers held tradeable quotas worth several hundred thousand dollars.

It took NCP and a $1.8 billion adjustment package to overcome powerful industry interests in NSW and Queensland in order to achieve a national dairy industry in June, 2000. This was the biggest rural adjustment package for any Australian primary industry and is accompanied by a Diary Regional Assistance Program. Without the adjustment package owners of milk quota in the non-quota states were likely to have pursued compensation claims in the courts; some may still do so.

Murray Goulburn Dairy Cooperative now transport milk to Penrith in Sydney, about thirty years after it was technically possible to do so, and National Foods have established a new plant to manufacture soy beverage at Wodonga. The twin cities border region has made a remarkable shift from regulation to being a mecca of competition.

In the fifty year period, 1950 – 2000, the dairy industry marketing agenda had shifted from 'food security' and 'favoured exporter' to 'efficiency' at a national level. Some farmers made super profits from the regulated marketing arrangements at the expense of consumers; other farmers were not able to enter the closed, higher priced market. Ultimately, many farmers had major adjustments to make that would not have been necessary had the restrictions to competition been removed when technological advances obviated their original purpose. Consumers would not now be funding an expensive transition. Even after deregulation, One Nation was promising to re-regulate the industry to assist disadvantaged dairyfarmers!

Despite NCP, not all primary industries are exposing themselves to the free market in their exporting arrangements. The grains industry retains a reprieve from the ACCC with its retention of single desk marketing.

Towards 2010 the farm agenda for marketing of primary produce includes managing environmental agreements for production of quality products (Mech and Young, 2001), quality assurance and food safety, organic produce standards and genetically modified organisms. Externally, trade policy via the World Trade Organisation is one prong; another is regional Supermarket to Asia, and a third strategy is state based programs such as South Australia's Food For the Future and Victoria's organic produce target.

Managing Change

> *"We have brought a holistic approach to rural communities. You can't just have a farm policy any more*."
>
> John Anderson
> National Party Leader
> The Australian, 10 October, 2001

The bulk of farm adjustment is autonomous, by farmers for their own business and family without any help from government. However, adverse circumstances have consistently been recognised as justification for government intervention on both economic and social grounds (Harris et al., 1974; ABARE, 1971; McColl et al., 1997).

The rural crisis of the late sixties prompted the introduction of the 1971 Rural Reconstruction Scheme (RRS), an all-industries scheme which overcame the inequities of several individual industry schemes which preceded it. From RRS to Rural Adjustment Scheme (RAS) in 1997 the basic measures were farm build up, debt reconstruction and rehabilitation with State and Federal governments involved in funding.

In the mid to late seventies South Australia's Minister for Agriculture, Brian Chatterton, showed national leadership in adjustment with SA becoming the first state to cease declaration of drought, relying instead on RRS as the overarching policy. It obviated the need for state officers to declare drought in various areas and introduced the principle that individual business cash flow was the principal assessment criterion. It also obviated the need for the state to spend a certain amount in order to trigger Federal funding, not rainfall or lack of.

Some years later I observed a Senate hearing in Adelaide where panel members were inquisitive as to how SA farmers coped without the freight and fodder subsidies that attached to drought assistance and which persisted elsewhere, particularly in Queensland, where allegations of rorting had prompted the inquiry. The no-drought declaration policy became quite contentious among the Eyre Peninsula community during the 1980s drought, with church groups organising fodder donation and distribution at one stage.

Rural crisis was driving the social aspects of the adjustment agenda during the 1970s. The Yackandandah community in the Kiewa Valley, Victoria, was a national first for research leading to new community services for farm family's experiencing financial stress. This work was supervised from Melbourne University where Dr Peter Salmon was a leader in the emerging field. Rural sociologist, Neil Barr, was recruited into his first field position at Warragul, working with Regional Chief, Andrew Volum, and myself on a project to research the dairy and beef industry crisis in Gippsland (Barr, Ronan and Volum, 1979). The Kiewa Valley and Gippsland research broke new ground in social and psychological aspects of farm management.

An important shift in the rural adjustment agenda occurred in the mid-eighties with the appointment of Australia's first Rural Counsellors. The Lachlan Advisory Group commenced on a voluntary basis before government funding stepped in (Rowe, 2002). Victoria's first rural counsellor, Russell Witcombe, spoke at the 1986 AFMS conference at Bendigo about his new role (Witcombe, 1986). Most areas of Australia continue to be serviced by rural counsellors. This development was significant in broadening the approach to rural adjustment, with special service to the farm family's needs - the social dimension.

In 1989, SA Department of Agriculture used a part of RAS funding, Diagnosis of Farmers' Adjustment Needs, to deploy two Rural Adjustment Coordinators, Venton Cook and myself, to Eyre Peninsula during the drought and wheat price collapse to work with farmers in financial difficulty. Later, as wool prices crashed, we visited farm families in all areas of the state, particularly where Rural Counselling Services had not commenced. We presented information about the new service to AFMS conference at Horsham in 1990 (Cook and Ronan, 1990).

The 1997 mid-term review of RAS chaired by Jim McColl shifted the adjustment agenda. McColl et al. (1997) emphasised the importance of management in farm performance:

> "Better quality management can significantly enhance the business performance of farms at any size level."
>
> "Increasing farm size is not in itself sufficient to ensure successfully enhanced farm business performance in the long term" (p 15).

Accordingly the report recommended a shift from interest rate subsidised debt reconstruction and farm build-up in favour of business management training (McColl et al; 1997). RAS was replaced by Agriculture Advancing Australia, placing self-reliance squarely on the agenda with drought redefined as an exceptional circumstance with consistent criteria for all states.

From the 1980s farm families began to increase their engagement in off-farm work and investment. ABARE surveys indicate the importance of off-farm income especially to smaller farms. In 1998, Rasheed, Rodriguez and Garnaut (1998) reported that, "off-farm wages and salaries alone averaged between 20 and 30 percent of the total income of farm families in the broadacre industries in the years 1993/94 to 1995/96." ABARE's Caroline Levantis (2001) noted that: "In 1998/99, off-farm income accounted on average for over half of total household income on broadacre farms." Levantis also reported that "farmers' expenditure in small country towns can represent over a third of economic activity – highlighting the importance of farming to employment in such towns."

The mutual interest of country towns on farm expenditure and the dependence of farms on off-farm income has ushered in the agenda of regional development. While not focussed on farm families only, rural communities and regional development policies were expanded during the 1990s, providing important adjustment opportunities for farm businesses and families through off-farm employment (Ronan, 1996; Stayner, 1997).

From mailed surveys, group and personal interviews during 1994-95 Stayner concluded that:

> "Off-farm work is no longer only something that is forced on farm families as a temporary measure in times of reduced incomes. Rather, a significant number of farm families choose to take off-farm work relatively permanently, often for non-financial reasons (Stayner, 1997, p1)."

More recently, PIRSA Rural Community Officers, Jim Cawthorne and Hilton Trigg presented a paper to the Australia and New Zealand Regional Science Association (ANZRSA) conference at Bendigo about community based work culminating in the Eyre Region Plan in SA; an excellent example of an integrated strategy, with environmental, social and economic elements, 12 years in the making (Cawthorne and Trigg, 2001).

Integrated programs for rural regions will not prevent downturns but programs such as South Australia's *Building Regions - A Stronger Regional South Australia*, shifting the agenda from blame to shared responsibility; shifting the focus towards the necessary work to achieve vibrant regions and cohesive rural communities.

Collectively, business training, rural counselling, exceptional circumstances assistance and integrated regional development strategies represent a significant shift away from drought declarations and interest rate subsidy policies; in fact, a paradigm shift from subsidies to strategic, community based programs.

Managing the Environment

> *"Eventually farm income may consist not only of income from the sale of commodities, but also income from the provision of ecosystem services: clean water delivered downstream, salinity reduction, carbon sinks and even improvements in biodiversity."*
>
> Graham Harris
> Chief, CSIRO Land and Water Division, In Walquist (2001).

As with other rural issues the 1974 Green Paper on Rural Policy (Harris et al; 1974) opened up a wide reform agenda, including its discussion of agriculture and the environment. Some issues were long standing and predictable, for example, soil erosion, weeds, salinity, effluent pollution and residues in animal tissue. Other issues were in their infancy and discussion was quite prescient of their rise to contemporary prominence: for example, reduced species diversity, environmental stability and the need for land and water policies to cross borders.

The report commended the innovative development of the Federal Government and three Murray River states to be cooperating across state borders: "land and water resource management should be related to natural rather than political boundaries (p242)." The Murray Darling Basin is still high on the national environment agenda.

It advocated government intervention in private land use where public interest was at stake:

- "The common good cannot be left to individual action but needs the collective action of society (p 242);
- "Conflicts in land use should not be left to the market to resolve and, in some circumstances, a substantial government intervention is essential (p268)."

It pointed to the inconsistency of tax incentives for land clearance with maintaining a stable land surface: "government incentives to particular land uses or practices should discriminate to ensure that adverse land-use practices are not also encouraged (p268)."

In the early eighties South Australia introduced a native vegetation clearance Act. This Act became part of a shift in the state and national agenda; a turnaround of earlier government policies which promoted land clearance through tax incentives for land development. It was a new public agenda for the environment requiring public assessment of farm business strategy involving vegetation on private property, without compensation. The 1984 AFMS conference took up the issue of farmers' land rights.

The agenda of farming and the environment shifted with Landcare, the idea of a Queensland grazier, Jock Douglas in the late eighties (Douglas, 2001). Landcare may not have impressed some on cost-benefit criteria, but it converted potential conflict between conservation and farming into national cooperation from which the natural resource management agenda has evolved.

AFMS focussed its national conference on Landcare in 1994, where the Australian Conservation Foundation's Philip Toyne and National Farmers' Federation's Rick Farley, recounted the background to the unusual union and the strategy of raising community awareness and changing farmers' attitudes to their land.

Also speaking at that conference was Neil Barr, who with John Cary had written *Greening a Brown Land: the Search for Sustainable Land Use*, an agenda shifting entry to the sustainability debate (Barr and Cary, 1992). Barr and Cary observed the evolution of dominant community values through the passage of time "from social survival to economic growth to environmental concern." They came to quite a different view about what is most important to sustainable agriculture:

> "What is required are profitable and practical conservation farming techniques and management strategies. Where these are not available the best assistance is research directed at producing and promoting practical and profitable solutions, rather than a reliance on evangelical calls to better farming and changing attitudes."

National Landcare Facilitator, Lachlan Polkinghorne, developed the theme of sustainable and profitable farming systems in his presentation to ABARE Outlook 1999 (Polkinghorne, 1999). From contact with farmer groups Polkinghorne and Landcare workers observed that: "landowners are more likely to invest in landcare activities if they are trading profitably."

US agricultural economist, Professor D. Gale Johnson (1997, p. 7), made a similar observation at the 45th Joseph Fisher Lecture at the University of Adelaide:

> "What needs to be recognised is that many environmental problems people of the world face are ameliorated or solved as per capita incomes increase."

National research by CSIRO Land and Water's Policy and Economic Research Unit in Adelaide suggests that lack of farm profitability is a major contributor to current environmental problems. At a recent AARES SA Branch seminar, Dr Stephen Hajkowitcz and Dr Mike Young presented a preview of their research, showing that in 1996/97 0.5 percent of Australia's agricultural land produced 50 percent of the net economic return. They suggest that the large variation in farm profitability and reliance on off-farm income requires a re-think of agricultural policy and land management (Hajkowitcz & Young, 2002).

Polkinghornes' vision for sustainability for the future included better information for farmers and demonstration that it works. Sustainability indicators need to be developed to the point "where every farm manager in Australia regularly measures sustainability criteria on a paddock based scale." And the extension challenge: "It is most important that the 'information' is packaged in such a way that farmers are able to adopt such practices easily." The new Landmark project in the Murray Darling Basin is an example of the sustainability vision linking through to practical farm management (Clifton, 2001).

Chief Executive of Landcare Australia, Brian Scarsbruck reported recently that 40 percent of practising farmers in Australia are in a community based landcare group (Scarsbruck , 2001). Scarsbruck referred to survey work by ABARE and others showed landcare membership not only influenced farmer attitudes but a landcare group member was, on average, 50 percent more likely to adopt a more sustainable agricultural practice than a non-member.

Explaining where it is economic and where it is uneconomic for farmers to rectify environmental problems is an area of recent research that sheds light on why some strategies are doomed. David Pannell (Pannell, 2001) highlights an oft neglected point:

> "…the private, farm level economics of the proposed management change are critically important in determining whether a program of economic policy instruments intended to reduce external costs would be a good thing. They may be even more important than the size of the external costs. In the case of dryland salinity this is likely to be the case more often than not."

David Thompson's research on the incentives that would be needed to assist retention of native vegetation and biodiversity is another example of environmental economics at farm level (Thompson, 2001).

The environment still has ample potential for conflict despite the internationally innovative convergence of interest struck by Landcare. One agenda development sees market mechanisms rewarding farmers for producing products under specified environmental standards via voluntary environmental management agreements (Mech and Young, 2001). Another agenda sees farmers concerned about transgression of their property rights without compensation (Donges, 2001).

The compensation obtained by the irrigation farmers of the Mitta Mitta Valley is an interesting example of pursuit of property rights. They are possibly only the second group of farmers in the world to obtain compensation for loss of environmental flow and nutrient deposits as a result of the building of the Dartmouth Dam (Noel Howard, personal communication, 2001).

Preferably, future farm/government interaction on the environment would see priority to a continuation of better understanding of ecosystem and economic issues affecting farming land and water and negotiated cooperation based on market and non-market strategies and respect for property rights, with last resort being environmental law. Table 2 summarises the evolution of farm management, rural and regional agenda in the five sections above.

Table 1: Farm and Rural Issues in Australian and International Context: 1970-2010

Year	Farm and Rural Issues	Australia	International
1970	Drought Wheat quotas lifted Wool price collapse Cattle Brucellosis and Tuberculosis Eradication Scheme (BTEC) starts		
1971	Department of Agriculture regional services, Victoria Rural Industries Assistance Act	MacMahon PM: advises woolgrowers to adjust out if uneconomic Australia joins OECD	UK introduces decimal currency
1972	Farm Management Planning Program on ABC-TV: Schapper	Change of Government: Whitlam PM Australia out of Vietnam Sydney Greasy Wool Futures Exchange becomes Sydney Futures Exchange	
1973	Rural Policy Green Paper (Harris et al) Australian Farm Management Society formed at Albury, NSW	Inflation reaches 16% pa 25 % tariff cut	OPEC Oil Shock 1
1974	Superphosphate subsidy removed Removal of investment allowance and special depreciation allowances for farmers Beef cattle price crash	Bankcard launched Electronic calculators	
1975	Livestock Market Reporting Service, Victoria	GG sacks Gough Whitlam; LCP forms government - Malcolm Fraser PM	Vietnam War ends
1976	48 % of rural employment in agriculture. Dairy industry crisis Qld repeals succession and gift duties	A$ devalued 17.5%	
1977	Victoria starts phase-out of milk quotas SA Min of Agric., Brian Chatterton, abandons area declaration of drought		
1978		Primary Industry Bank of Australia established	
1979			OPEC 2 oil shock
1980		Interest rate ceiling removed from bank deposits	
1981	Minimum tillage takes off	Campbell Report tabled	Personal computers penetrate market Lotus 123
1982	Red wine in doldrums	Reserve Bank removes quantitative restrictions on bank lending	
1983	Age Pension Assets Test	10 new banks, including foreign ALP wins office A$ floated Most exchange rate controls abolished	

1984	Native Vegetation Act (SA)	Martin Report on Aust Fin System endorses continued financial deregulation	
1985	SA Vine Pull Scheme commences	More new banks and amalgamations	
1986	Rural Counselling Services commence Beerenberg win Jubilee Farm Management Award (AFMS-SA Branch)	Rural Credits department of Reserve Bank phased out	US farm financial crisis
1987	Drought on Eyre Peninsula	PM Robert Hawke re-elected for third term of ALP Government	Single European Act for EEC free market
1988	Centenary of Agricultural Bureau, SA	Sydney Futures Exchange trades $A contracts	
1989	Farm loans hit 20% Rural Adjustment Coordination Service in SA	Tax file numbers introduced Landcare launched by PM Hawke, Wentworth, NSW	Fall of Berlin Wall, Germany End of Cold War
1990	Wool stockpile reaches 4.75 m bales Wool Reserve Price Scheme collapses Rural crisis AQIS permits Canadian pork imports	Reserve Bank eases cash rate from 17% (Jan) to 12% (Dec)	World population 512 billion
1991	24 % of rural employment in agriculture. IBIS environment award	RBA eases interest rates to 8.5% Paul Keating PM	Gulf War begins
1992	Rural Adjustment Scheme 2 (RAS) commences	Mabo Native Title legislationCompulsory employer provided superannuation commences	
1993	Rural Women of the Year Award	Labor wins 5th election since 1983: Keating PM	
1994		National Competition Policy Regional development	Internet adoption
1995	Farmhand Appeal	Currency crisis Australian Competition and Consumer Commission (ACCC) formed	
1996		Liberal-National Party Coalition win government: John Howard PM RBA drops interest rates to 6%	
1997	Mid-Term Review of RAS (McColl et al) Rural Finance Summit	First sale of Telstra	Asian economic crisis
1998	Pig industry crisis and $25m adjustment package Meat & Livestock Australia (MLA) pilots Meat Standards Australia (MSA) beef in Qld	Advancing Agriculture-Australia replaces RAS Supermarket to Asia commences	Indonesia's president Suharto resigns after 30 years
1999	Wine reaches $2bn exports	Australia in East Timor	
2000	National Livestock Identification Scheme (NLIS) National dairy deregulation and $1.8 billion dairy adjustment scheme	GST commences	

2001	Mandatory labelling of GM grains in Asian food ACCC authorises regional collective negotiation by dairyfarmers with processors BSE cases in Japan Last bales sold from wool stockpile, August	ANZAS treaty invoked Australian dollar less than US 50c RBA drops interest rates to 4.5 % PM Howard re-elected for third term, November	September 11, USA attacked by terrorists War on Terrorism Foot & Mouth Disease outbreak in UK US Farm Bill increases subsidy to farmers to $340 billion over next 10 years
2002			Euro currency launched
2003 ~ 2009			
2010	Victorian Government targets $30 m per annum organic produce by 2015 SA Government Food For the Future targets $15bn by 2010	Target of 2% energy from renewable resources	

Acknowledgments to Elkington (1997) for international environmental events information and Carew (1998) for calendar of Australian economic and financial events.

Table 2: Australian Farm Management, Rural and Regional Agenda: 1970-2010

	Market Failure	**Private/Public Interest**					
		Private	**Public**	**Type**	**Past (1970+)**	**Present**	**Future (2002-2010)**
Information & Decision Making	×	4/5	1/5	Efficiency	'Free' government extension	Competitive neutrality - government/private consulting World wide web	Integrated decision support tools and services
2. Succession	×	4/5	1/5	Efficiency & Social	Death duties	Succession and retirement training	Farm and family risk management
3. Marketing	×	4/5	1/5	Economic	World trade – GATT Regulation Protection	World trade – WTO National competition Supermarket to Asia Food for the Future	WTO v US & EC subsidies Food safety & integrity Quality assurance & market risk management National & State Food Strategies
4. Change	✓	3/5	2/5	Structural & Social	Subsidies for drought and rural adjustment Rural counselling	Regional economic development Rural counselling FarmBIS training and Exceptional circumstances	Integrated regional & community development Rural counselling Exceptional circumstances
5. Environment	✓	2½/5	2½/5	Environment	Development incentives	Land and water audit Landcare/NHT Native vegetation regulations	Environmental management agreements Property rights TBL & biodiversity valuation

Conclusions

The agenda of farm management in Australia is observed to broaden in its attention to environmental and social dimensions and deepen as new knowledge sheds light on complex ecosystems, rural and regional economic and community development.

Market deregulation and the shift towards farm sector self-sufficiency sees less general subsidies and more focussed industry and regional development. Better education and training and more targeted counselling and strategic assistance are helping farm families and other rural people to manage the opportunities and stresses that accompany change.

Farm policy as a key 'shaper and driver' of farm management in Australia has evolved into rural and regional policy, environment policy and welfare policy. The agenda of farm management is extending and connecting more confidently with national and global food market chains.

While food security, farm and environment protection remain high on the international farm agenda, food safety and integrity are the dominant current agenda driving the sector in Australia. Managing environmental agreements and market contracts will be high on Australian farmers' agenda this decade.

Rural sector development is underpinned by the calibre of farm management. Survival instincts mixed with good knowledge, sound judgement and new and old skills are management requisites in a risky business environment where survival is imperative and profit may be intermittent. S

uccessful farm managers adjust to external change and drive their own agenda. Business fundamentals - profit, wealth creation and survival -are all on the farm management agenda with new emphasis on sustainability and self-sufficiency.

Public and private priority on the environment has reached new highs with elements of conflict and convergence of interest both in play. A complex mix of farm family determinism, market forces, government policies, international trade rules and distortions, community environmental values and social dynamics will drive farm management agenda into the twenty-first century.

The nominated legends, leaders and champions of farm management are examples of the calibre and contribution of the 'people factor 'to the success of the Australian farm sector.

The performance and priorities of farming people and organisations engenders optimism about the adaptability and vigour of Australian farm managers as the pivotal resource for a sector which continues to make an extremely significant contribution to the Australian economy.

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Appendix 1:

Australian Farm Management Society National Conferences: 1974 - 1997

Farming in the information age: Australian Farm Management Society Ltd., 23rd National Conference, 6-8 February 1997, University of Southern Queensland, Toowoomba.

Farming-making the lifestyle your business: Australian Farm Management Society Ltd., 22nd National Conference, 20-22 March, 1996, Federal Country Club, Launceston, Tasmania.

Keys to farm business success: The Australian Farm Management Society Ltd. 21st National Conference 15-17 February, 1995, Orange, NSW.

Is Landcare delivering for you?: Australian Farm Management Society 20th National Conference 17 - 19 March, 1994. Canberra, ACT.

Marketing food and agriculture – all the food we eat-more than half the clothes we wear: Australian Farm Management Society. 19th National Conference 10th-12th February, 1993, Victorian College of Agriculture and Horticulture, Dookie Campus, Victoria.

Farming on the edge of the twenty first century: Australian Farm Management Society. 18th National Conference 11th-14th February, 1992, Roseworthy Campus, University of Adelaide, South Australia.

Shaping tomorrow's farm today: Australian Farm Management Society. 17th National Conference 7-9th February, 1990, Victorian College of Agriculture and Horticulture, Longerenong Campus, Victoria.

Management for sustainable farming: Australian Farm Management Society. 16th National Conference 29-31 March, 1989, Emerald, Queensland.

Bridging the gap – theory into practice: Australian Farm Management Society 15th. National Conference 21-24 March, 1988, Leongatha, Victoria.

The limit is you: Australian Farm Management Society. 14th National Conference 9 to 13 March, 1987, Launceston, Tasmania.

People in management: Australian Farm Management Society 13th National Conference 8-10 July, 1986, Bendigo, Victoria.

Intensification of agriculture: Australian Farm Management Society. 12th National Conference 19th-21st February, 1985, Albury, N.S.W. and Wodonga, Victoria.

Running the Farm: Australian Farm Management Society 11th National Conference 14th-18th Feb. 1984, Roseworthy Agricultural College. Sessions included Outside influences in Running the Farm, Running the Farm in Practice, Running Dryland Farms in the Future and Management Issues in Horticulture.

Agriculture as an investment: Australian Farm Management Society 10th National Conference February 15th-18th, 1983, University of New England, Armidale, N.S.W.

Managing change: Australian Farm Management Society 9th National Conference February 1st-5th, 1982, Glenormiston Agricultural College, Victoria.

Farming in focus 81: Australian Farm Management Society 8th National Conference, January 19th-22nd 1981 Merredin, Western Australia.

The farm as a business: Australian Farm Management Society 7th National Conference January 22-25, 1980. Orange, New South Wales.

Better decisions-better profits?: Australian Farm Management Society 6th National Conference January 24-26th, 1979, Queensland Agricultural College, Gatton, Queensland.

Capitalizing on change: Australian Farm Management Society 5th National Conference, Jan. 31-Feb. 3, 1978 McMillan Rural Studies Centre; Gippsland Institute of Advanced Education , Victoria.

The future of the family farm: Australian Farm Management Society 4th National Conference 1977, Roseworthy Agricultural College, South Australia.

Australian Agriculture in the 1980's – Conception to Consumption: Australian Farm Management Society 3rd Annual Conference, 28-30th January, 1976, Perth, Western Australia.

The manpower crisis in agriculture: Australian Farm Management Society 2nd Annual Conference 3rd-6th February, 1975, Glenormiston Agricultural College, Victoria.

Marketing and Financing into the 1980's: Australian Farm Management Society Annual Conference 12-14th February 1974, Orange Agricultural College, New South Wales.

Prior to 1974 there were Australian Farm Business Management Congresses and Annual Conferences/Refresher Courses conducted by the Farm Management Branch of the Australian Institute of Agricultural Science.