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The John L Dillon Memorial Lecture 2010

The rise and fall of farm management as an academic discipline: an autobiographical perspective

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Abstract. The title relates to the title of the Inaugural Lecture of the Late Professor John L Dillon, Foundation Professor of Farm Management at UNE, in whose memory this lecture series was established. The author has been involved in the farm management discipline for more than 50 years. He reflects on the nature and origins of the discipline and outlines some key aspects of its evolution. The discipline boomed in the 1960s and 70s, both internationally and at UNE. Yet it has fallen into relative decline subsequently. He suggests some of the reasons for the decline, focussing particularly on issues in Australia. He discusses the need for a revival in a world in which food security is likely to be an increasingly serious problem. He concludes with thoughts about the prospects and prerequisites for a revival of the discipline.

Introduction

The Late Professor John Louis Dillon AO, 1931-2001, in whose memory this lecture series was established, was appointed as the Inaugural Professor of Farm Management at the University of New England in 1965. His Inaugural Public Lecture was entitled 'Farm management as an academic discipline in Australia' (Dillon 1965). The fact that he had to make a case for farm management in the university syllabus reflects the scepticism of many people, especially some in the Faculty of Arts, that the subject really qualified to be taught and researched at university level.

From those early days farm management as a discipline really boomed, at UNE and in many other universities around the world. But subsequently the discipline went into a relative decline. I have lived and worked through this rise and fall. I might claim to have contributed a smidgen to the rise, and some might say I also contributed to the fall. But at least I was around through both and I have given much thought to what happened and why, and whether there is any hope of resurrection.

Origins and nature of farm management as an academic discipline

The beginnings of the farm management are extensively described in Dillon's Inaugural Lecture. Basically, there were two origins, one in farm accounting and one in production economics. Simplifying and confining things to English-speaking countries, the accounting origins were predominant in Britain and the economic origins were stronger in North America.

I have long viewed the academic discipline of farm management as primarily a branch of production economics. Lionel Robbins was a British economist who was the head of the

Economics Department at the London School of Economics. Among other things, he was famous for his definition of economics as:

The science which studies human behaviour as a relationship between ends and scarce means which have alternative uses.

I believe that this is a good description of what economics is, or at least what it should be. Note that it refers to ends plural, and does not mention income or profit maximisation. Contrary to what many critics think, economic principles can be applied as well to any objectives or 'ends', of course including lifestyle goals for farm families and other environmental or social ends. Studying the relationship between ends and scarce means is central to what farm management is all about (Malcolm 2004a).

I think the discipline I am discussing may be best called 'farm management and production economics', but that is too much of a mouthful. I have a preference for the name 'farm economics', but for now I'll stick with 'farm management', which was the title attached to John Dillon's Professorship.

Because farm management has to do with the economics of farming, it is, of course, almost identical to the discipline of agricultural economics. Perhaps the difference is that agricultural economics deals mainly with policy issues, while farm management deals chiefly with the economics of farming. So, while primarily a branch of economics, farm management also demands of its practitioners a sound knowledge of agricultural science, farming methods and customs, as well as understanding and appreciation of farm people. In the early days, most members of the discipline came to it from a degree in agriculture. That was true of most of the staff

and graduate students at UNE in the early days, including John Dillon himself.

Learning farm management in the 1950s

By the time I started to study farm management as a second year undergraduate in agriculture at Nottingham University in 1955, the two threads of accounting and economics were being merged. In my final year at Nottingham I majored in farm management. We did a lot of farm case studies, based on farm visits, which in my view is the only way to teach and learn farm management successfully (Malcolm 2000).

Linking university departments to farmers

Accepting that farm management has to do with real farms and real farmers, it is obvious that members of the discipline must interact extensively with the people who are their ultimate clients – something that has never been easy in Australian universities. The situation in other countries is much better, as illustrated by my early professional work in Britain.

The PAES in Britain – Farm survey work

My first job after leaving Nottingham University was in the Agricultural Economics Department of Wye College. The college was the Faculty of Agriculture of the University of London, located in the charming but sleepy village of Wye in Kent.

Departments of agricultural economics in universities and colleges in the UK formed what was called the Provincial Agricultural Economics Service (PAES). The departments were funded by the Ministry of Agriculture for various tasks but primarily to collect economic data about farming. This was in addition to normal teaching and research work, funded in the same way as for other university departments. A similar arrangement still exists.

A large part of my job was to undertake what were called 'enterprise studies' to collect farmers' 'costs of production' of particular commodities. These were random sample surveys entailing regular visits to cooperating farmers over the period of production of the particular commodity. The information was used, I shudder to think how, in negotiations between the Government and the National Farmers Union at the Annual Price Review when guaranteed prices for the following year were set.

The main purpose of the work I was doing was at best dubious, since it is usually impossible to derive the costs of producing a single enterprise on a mixed farm. In any case, subsidised prices tend to determine the costs of production, not the other way round.

However, the work did mean that I met and talked to a lot of farmers. I learned a great deal from and about farmers through that experience, as well as some important things about myself. I have found the experience I gained useful in understanding farmers and farm management in many other places and contexts. In addition to satisfying the requirements of the Ministry, we were able to graft on small research projects as part of the data collection. We also accumulated a good set of input-output information from the enterprise studies, useful for farm planning work.

The PAES work included an annual farm management survey (FMS) in which whole-farm physical and financial information was gathered from cooperating farmers. This survey provided an excellent basis for picking case studies for farm management teaching. The survey also offered a good data base for research, although, looking back, I think we missed many opportunities in that regard. Interestingly, the FMS still continues, though under a different name, providing an outstanding long-term data set.

Aside on computers in farm management

Most people today probably have little idea of what life was like before the age of personal computers. In the Department at Wye when I arrived there was one mechanical adding machine and two of the new electric calculators – electrical, not electronic – which could add, subtract, multiply and divide. However, I was too junior to be allowed to use these aids. I was handling a lot of data but I had to do addition and subtraction by mental arithmetic and multiplication and division in the same way, or by slide rule or using log tables. And, of course, there was no decimalisation, so money was in pounds, shillings, pence and halfpennies, weights were in tons, hundredweights, quarters, pounds and ounces, land area was in acres roods and perches. Yet we had access to a mainframe computer. It was housed in and filled a warehouse on the Tottenham Court Road in London. It had far less computing power than a modern PC. Input was in the form of punched paper tape that we produced on teletype machines at Wye and mailed to London, so turn-round time was a minimum of three days. There was hardly any software, and no Fortran or other high-level programming languages, so for most tasks we had to write our own programs in very basic code. On this machine I struggled for weeks to run my first linear programming model. Nowadays, that model would run on my semi-obsolete PC at home in 0.0 seconds. Quite a change in one working lifetime!

Promoting farm planning methods

In 1964 I finally prised myself away from the relaxed life at Wye and took up the position of Farm Management Liaison Officer in the Farm Economics Branch of the University of Cambridge. In addition to some teaching and research, my job was to help train the government farm advisory officers in farm management and also, incidentally, to provide free economic advice to any farmer in the Eastern Region of England who asked for it. In this job I was involved, not in the birth, but in the infancy of the concept of gross margins.

The basic idea of gross margins had been proposed by Liversage (1950; 1956) as long ago as 1950, in a farm accounting context, but with little effect. He tried again in 1956, proposing the concept for farm planning. Again, there was no immediate uptake until David Wallace, a predecessor of mine as Farm Management Liaison Officer at Cambridge, took it up. He and Clifford Selly, an agricultural journalist, produced a short series of programs on gross margins on the BBC TV farming program, along with an accompanying publication (Selly and Wallace 1961). At that stage they were still marketing gross margins mainly as a farm accounting device. However, the merit of using gross margins for farm planning had been recognised by the head of the government advisory service for the Eastern Region of England. This is a region with some of the best land for crop production in Britain, and gross margins work best in cropping situations.

My job was to help teach the government advisory officers in that region how to calculate and use gross margins for farm planning. I felt rather like a person giving a boy a loaded gun and sending him outside to shoot rabbits. The approach could be very effective but could too easily be misused with potentially disastrous consequences. Gross margins had been promoted by Selly and Wallace as measuring the relative profitability of different farm enterprises, but of course, they do not do that. They account for only the variable costs, yet different farming activities make differential demands on farm resources of land, labour, machinery and capital which, in general, are not represented among the variable costs. To measure profitability, these resources need to be costed at their shadow prices, which are unobserved. Farm planning methods such as linear programming cope with the problem by accounting for the constraints associated with fixed resources, but simply comparing gross margins can lead to seriously wrong conclusions. For many years I taught the introductory farm management course here

at UNE and I tried to drum the limitations of gross margins into the students, sadly too often with limited success.

The main benefit that came from the promotion of gross margins was that it led to the decline in the backward-looking accounting approach to farm management that had prevailed in Britain to that time. Comparative analysis had been all the go, promoted by people such as Blagburn (1961) at Reading University. The approach had been savagely criticised by Candler¹ and Sargent (1961) who pointed out the serious inconsistencies between many of the partial measures of farm performance then in vogue as benchmarks and profit-maximising principles of production economics. They showed how it would be possible to improve one or other of the commonly-used ratios by reducing farm profit. It is interesting that the wheel has turned almost full circle and what is now called 'benchmarking' is somewhat in vogue again. I suggest that it still has the same limitations that were identified by Candler and Sargent, although I have to admit that I have often found it useful in practice.

Early days of farm management at UNE

The origin of farm management at UNE really stems from an early proposal by the late Sir John Crawford – who had a very influential career as a public servant, a scholar and a leader of ANU. When plans to establish UNE were being considered he recommended the establishment of a 'faculty of rural economy'. I suspect that that proposal initially got 'morphed' into the Faculty of Rural Science, founded and led by the late Bill McClymont. Bill was the Inaugural Professor of Rural Science and a charismatic leader but he did not want much social science in the rural science degree. Perhaps because of that, an investigation was instigated into setting up a separate discipline of Agricultural Economics. The late Jim Belshaw, who was the Inaugural Professor of Economics, and an enthusiastic supporter of the establishment of agricultural economics at UNE, went on an international tour visiting agricultural economics departments in North America and the UK. His report led to the establishment of a separate Faculty of Agricultural Economics with Professor Jack Lewis as Inaugural Dean. Within that Faculty, various departments of the university had their origins, including Sociology, Accounting, Politics and Government, Econometrics and, of course,

¹ Wilf Candler was the first lecturer in farm management appointed at UNE, but by the time of this publication he was Professor at Massey University in New Zealand.

both Agricultural Economics and Farm Management (Lewis 1985).

I believe that a Department of Farm Management was formed, separate from the Department of Agricultural Economics, because in those days there was a rule that there could be only one professor per department. So a separate department had to be created to provide a Chair to attract John Dillon to UNE. Of course, later the two groups were very sensibly merged.

In 1967 I took up a lectureship at UNE in John Dillon's Department of Farm Management. It was a wonderful place to work. There were some good staff and Dillon had assembled a group of very able graduate students. There is nothing like having graduate students who are cleverer than you to get you motivated! Many of those graduate students from the early days, as well as many of those who came later, went on to do great things.

The best thing for me about those days was the seminars. They literally buzzed with critical debate. Ideas flew about and disagreements were rife and often heated. But at the end of the day any animosities were soon lubricated away over a few beers. Those seminars taught me how knowledge is advanced through critical debate and the free and forceful exchange of ideas.

The rise of farm management

Under John Dillon's leadership, farm management teaching and research boomed at UNE. One inspired appointment he made was the late Jack Makeham. I can only describe Jack as 'a true-blue character'. He was, and for a while continued to be, a successful farm management consultant, and he brought a huge dose of reality to the teaching of farm management. I gained a lot from my association with him and I am proud that we were good mates. Jack generally taught the senior farm management units, basing them around case-study farm visits, just as I had experienced as a student.

John Dillon's PhD at Iowa State had been on the role of game theory for risky farm decision making. He concluded, in a paper entitled 'Applications of game theory in agricultural economics: Review and requiem' – a typical Dillon touch – that game theory had no role for games against nature (Dillon 1962). Instead he became interested in decision analysis and soon after I arrived he persuaded the late Professor Al Halter from Oregon State University to come to UNE to deliver a course on the topic. The course was based around the book Al was working on with the late Gerry Dean from University of California at Davis (Halter and Dean 1971). I was very impressed by the logical appeal of

the approach and three of us, Jock Anderson, John Dillon and myself, set to work on a book on the subject that became very influential (Anderson et al. 1977).

It was in part because of the innovative work on risk, I believe, that agricultural economics and farm management at UNE became internationally renowned. At one stage, the combined department ranked in the top dozen or so in the world. From 1988 to about 1994 the department was recognised by the Federal Government as one of a few Key Centres of Excellence, a rare distinction. That status brought extra funding to provide advanced training in agricultural economics/farm management.

While farm management was booming at UNE it was also thriving in other centres in Australia and around the world. All seemed to be going well.

Contributions of farm management

The contribution of teaching

The contribution of teaching is hard to assess. I have not been able to locate any study specifically on the benefits of farm management education. From a personal viewpoint, being a university teacher is a bit like working on a production line. Along come the students, year by year, and for each batch you try to add the components for which you have responsibility. That batch eventually moves out and you never see most of them again. Occasional feedback from graduates is unusual but gratifying when it is positive. That has happened for me often enough for me to believe that our teaching efforts in farm management were not wasted.

There is good evidence that general education of farmers usually has a positive effect on farm productivity and efficiency (e.g. Phillips 1994). Beyond that, it is my experience that the widespread teaching of farm management has been successful in changing the way many farmers and many of those who deal with them think about farm decisions.

I do know that many of our UNE graduates have taken up important and influential jobs in Australia and internationally, in many cases building on what they learned about farm management at this university. I know of people who have built successful careers in such organisations as the State Departments of Agriculture, ABARE, the World Bank, the Asian Development Bank, the Food and Agriculture Organisation of the UN, international agricultural research centres and, of course, jobs in the commercial sectors, farming included.

Research contributions

Given that I am somewhat out of touch with the most recent state of the profession, it is fortunate that I can draw on the up-to-date views of Chavas et al. (2010) in a paper entitled 'Production economics and farm management: a century of contributions'. They have listed 16 major contributions under a number of headings. There are too many topics to discuss in detail but their list is as follows:

Applied Production Analysis

1. Identifying the role of diminishing returns
2. Establishing linkages between cost and supply response
3. Integrating economic theory and farmers' decisions
4. Using duality theory in the analysis of agricultural production decisions

Agricultural Productivity

5. Assessing agricultural productivity

Risk

6. Identifying the role of risk in agricultural decisions
7. Assessing the efficiency of agricultural decisions under risk
8. Assessing the role of technology and farmers' risk preferences
9. Analysing intertemporal investments
10. Assessing the role of crop insurance and land tenure contracts
11. Assessing the economics of agricultural production under risk

Dynamics

12. Analysing agricultural supply dynamics
13. Analysing the role of expectations
14. Analysing the process of technology adoption in agriculture
15. Assessing the role of human capital and managerial ability in agriculture
16. Analysing the evolving structure of agricultural production

It is interesting to note that important contributions in many of these fields have been made here at UNE, as can be seen from their (somewhat US-centric) list of references.

There is scope for disagreement about which contributions deserve to be in the above list. For what it is worth, here is my list of the top five contributions of the discipline:

1. Bringing economic thinking to farming decisions.
2. Promoting a planning approach to farm management.

3. Developing methods of new technology assessment – including accounting for risk.
4. Contributing to priority setting in agricultural research.
5. Improving understanding of farm-level impact of agricultural policies.

The decline of farm management

The academic discipline of farm management has declined since the heydays of the 60s, 70s and 80s.

To illustrate, I started my professional career in the Department of Agricultural Economics at Wye College (University of London). Neither the Department nor the College exist today. I moved to the Farm Economics Branch at Cambridge University. It no longer exists and nor does the Faculty of Agriculture in which it was located. I then came to the Department of Farm Management in the Faculty of Agricultural Economics at UNE. Neither exists today. I keep asking myself, was it something I did?

Yet the farm management discipline is not yet quite dead. How much has survived depends on how the boundaries of the discipline are defined (or re-defined).

In Australia, as in other countries, there has undoubtedly been a decline in university teaching and research under the rubric of 'farm management'. But some of the material that was taught as farm management is now integrated into courses in the agricultural sciences or has been 're-badged' as agribusiness management or similar. So all is not yet lost.

The inclusion of farm management into agronomy or animal science units is generally to be welcomed, but with some reservations. As Malcolm (2004a) has argued, economic illiteracy is abundant in farm management analysis. Failure to understand the economics at the core of farm-management analysis can lead to wrong questions being asked and wrong answers being given. I know from a number of papers sent to me for review by professional journals that it is not unusual for agricultural scientists dabbling in farm management to get the economics wrong.

I presume that the 're-badging' of farm management units as agribusiness is based on the proposition that there are few differences in principle between farm management and the management of other businesses related to agriculture. It is, of course, true that, as farming becomes more commercialised, the difference between farm management and management of agricultural or even general businesses narrows. Yet I still believe that there are enough differences between managing a cotton mill, an abattoir

or bank versus managing a farm to warrant a training that takes specific account of the realities of farming – the direct dependence on nature, with the complexity and uncertainty that flows from that. And, despite the increased commercialisation of farming, most farm businesses around the world are still family concerns, whereas many non-farm agribusinesses are parts of large, often multi-national corporations. The management issues for, say John Deere or Rabobank (a farmers' cooperative and one of the largest banks in the world) are very different from those of a 1 ha farm in India or, indeed, from a 1000 ha sheep and beef farm in New England.

That said, I am not competent to comment on the merits of the many courses in agribusiness that have sprung up in universities around the world. It does seem, however, that few of them include any substantial amount of case studies based around off-campus visits. To my mind, such visits were the key to the success of the farm management training that used to be provided at UNE and other places of similar standing.

Some possible reasons for the decline

Given that it is, I believe, incontestable that many good things have come from teaching and research in farm management, what went wrong? There has been much fairly recent navel-gazing by the profession, at least in Australia (Brennan and McCown 2002; 2003; Charry and Parton 2002; Kemp and Girdwood 2002; Kingwell 2002; Mullen 2002; Ronan 2002; Charry et al. 2003; Martin and Woodford 2003; McGregor et al. 2003; Malcolm 2004a; b). The list below draws in part on the results of some of these cogitations.

- We got it wrong. Among the ideas of how we erred I am most convinced by the views of Malcolm (2000) that there was too much work on developing more advanced models of imaginary farms and too little work with real farms and real farmers. In part, this may be attributed to the difficulty in Australia in getting access to relevant data about real farms, discussed later, but that is really not a full excuse. Perhaps also the profession was too slow to recognise the need to account for multiple objectives of farmers, including ecological issues, although I suspect that thinking about the environment is more of a novelty to many academics than it is to farmers, who have been used to coping with nature for a long time.
- Weak demand from students due to the poor view of farming as a career

promulgated by the media. This is not a new problem and needs to be counteracted by appropriate promotion of the degrees. However the issue has become more important since universities started to treat students a clients and, in the rush to get customers in the door, have been driven to offer courses that are popular rather than those that are needed for the benefit of the society as a whole.

- The perception that there are easier ways to get a degree than via a challenging four-year degree in agricultural science or agricultural economics. Again this is a marketing problem to recruit able students who can cope with somewhat more challenging but higher quality degrees.
- Teaching farm management well is expensive. Frequent farm visits are needed, especially for more advanced units, and that is difficult and expensive to organise. With tight budgets and new health and safety rules, most universities have found it necessary to cut out such courses. The problem has arisen because the extra work and difficulty in getting students out to farms has never been fully recognised in funding arrangements.
- The perceived difficulty of undertaking publishable research in farm management. The difficulty arises because every farm is different, so that generating widely applicable results is hard. This problem also has contributed to the over-emphasis on methods rather than on applications. However, the somewhat neglected case-study approach to research partially overcomes this problem and, in any case, there are still a number of worthwhile lines of research to be followed, as recent literature illustrates.
- Some kinds of farm management research need access to large sets of farm-level data. Assembling such data is difficult and expensive. In Australia, large-scale surveys of farm economics are undertaken regularly by ABARE, but getting access to the information at individual farm level is just about impossible on grounds of confidentiality.

There is a contrast here with the situation in other countries. In Britain, The Netherlands and Norway it is possible for bona fide researchers to get access to individual farm records, apparently without breaching confidentiality constraints. Why not in Australia? The excessive secrecy of ABARE must surely have been seriously welfare depleting, given the many important issues in farm

economics that might have been investigated but were not.

From the start John Dillon had recognised the need to have contact with the farming community and to gather farm level information. To this end he established within the Department the Farm Management Service Centre. It soon grew into the ABRI, which is certainly a successful business today, but which, in my experience, has not contributed, for whatever reasons, to the provision of significant data sets for research use outside the ABRI.

The need for a revival

I was made aware early in my career of the dangers of predicting the future. I once told a farmers' meeting in England that farmland prices could not go above 100 pounds an acre. When they hit 2000 pounds an acre I left for Australia. So I'll not say what I think will happen, only what I hope might.

The shortage of graduates in agriculture

That said, I think that there is little doubt that there is a growing and serious shortage of suitably qualified graduates entering agriculture. According to Meacham (2009), a 2007 study by the Australian Council of Deans of Agriculture found fewer than 800 agriculture graduates were leaving universities each year to fill more than 2000 job vacancies each year. And it's getting worse. Meacham claimed that more than half of the agriculture professionals working in the public service are expected to retire within the next five years. Similarly, the average age of Australian farmers has been rising and is now about 54.² It seems clear that even more agriculture graduates will be needed in the coming years. Many of the jobs to be filled will need people with a firm grasp of farm management.

The predicted 'perfect storm'

In a speech last year that was widely reported, Professor John Beddington, the British Government's Chief Scientist, argued that world will face a 'perfect storm' of problems by 2030.³ He claimed that food shortages caused by increased food demand coupled with scarce water and insufficient energy resources threaten to unleash public unrest, cross-border conflicts and mass migration as people flee from the worst-

affected regions. He based this view on the incontestable proposition that growing population and success in alleviating poverty in developing countries will trigger a surge in demand for food, water and energy, at a time when governments must also make major progress in combating climate change.

Of course, he is not the first to predict doom and despondency in the sustainability of the global food supplies. Malthus had propounded similar views in 1798 and The Club of Rome in the early 70s (Meadows et al. 1972), both having been proved wrong to date. Yet it might be very unwise to disregard Beddington's predictions. The GFC should have taught us that assuming that the good times will continue for ever just because they have lasted for quite a while can be a serious mistake. Certainly, Beddington's ideas have changed views about agricultural policy in Britain although, it seems, they have had little impact on public opinion here in Australia.

The case for a revival

If Beddington is right, and global food security is seriously threatened, it is clear that Australia and the world are under-investing in agricultural teaching, research and development. Even if there is only a small chance that he is right, I suggest we should be giving more priority to agricultural teaching and research (including farm management). We know from previous studies that investments of these kinds pay good dividends (e.g. Alston et al. 2000, Phillips 1994). If agriculture is to be given a boost, there will be a need for professionals with farm management training to keep the research and development efforts relevant to the needs and circumstances of tomorrow's farmers. Moreover, as resources become scarcer, allocating what is available efficiently will become especially important.

Priorities for future research

Even without the shadow of looming food insecurity, there is a remaining strong need for more research into the economics of farming, and for agricultural policy making to be better grounded in the realities 'down on the farm' – tasks that farm management economists have traditionally undertaken. Chevas et al. (2010), cited earlier, have listed the following as high priorities for further research:

- There is a need to refine our understanding of the role of risk/uncertainty in agriculture.
- There is a need for better understanding of the farmers' decision-making processes.

² www.australia2020.gov.au/topics/docs/rural.pdf.

³ The text only of Professor Sir John Beddington's speech to the Sustainable Development UK 2009 Conference is available at www.govnet.co.uk/news/govnet/professor-sir-john-beddingtons-speech-at-sduk-09. The graphics to which he refers are unfortunately not there.

- There is a need for better understanding of how farm decisions interact with the relevant ecosystems.

I agree on all three counts.

Outlook for a revival – some questions

The need may be there but is it realistic to hope for a revival of the farm management discipline? Having been retired for over 15 years I am not well placed to judge. Instead, I can suggest what seem to me to be some of the key questions.

- Can student demand be increased through promotion? The weakness in demand for 'unpopular' degree courses will only be overcome if academic staff from those disciplines have the time, resources and motivation to meet school leavers and their advisers in order to persuade and cajole at least the better students that there are good rewards from taking on a course in agricultural economics or agricultural science, or for that matter in chemistry or mathematics. Generic promotion of the university will not do the trick.
- Can the minds of funding providers be changed? Who, I wonder, might be the effective lobbyists? It is my guess that the best allies to support a push for a revival of farm management teaching and research would be the farming community. How could they best be mobilised?
- Who will lead a revival at discipline level? In my day it was possible for a member of the academic staff to push for, and often to achieve, some new initiative. Thus, with the help and support of colleagues, I was able to get established a graduate program in agricultural development economics that was very successful for several years. At one time we had as many as 100 students in the program. It collapsed only after control of the program was taken away from the department and given to university administrators who, of course, did not have the same motivation to keep it going.

It seems to me, now as an outside observer, that universities generally have moved strongly towards a 'top-down' management mode. Perhaps this has been forced upon them by progressive cuts in funding. Whatever the reason, the change in management mode appears to have further eroded the scope for initiatives by those working 'at the coal face'. That must make it hard for anyone in the farm management discipline to take a leadership role in its revival.

- Given these difficulties, what alliances can be formed or strengthened? Perhaps by banding together with like-minded others, a revival of farm management will be easier to achieve. Potential supporters with whom alliances might be formed might include farmers, relevant CRCs, other universities and colleges, State Departments of Agriculture, CSIRO, ABARE and other relevant government agencies, banks, rural accountants and other businesses dealing with farmers. The scope is wide so picking the best allies may be crucial to the chance of success. In my view, an effort for a revival needs to be broadly based. Some UNE graduates with farm management training have reached senior positions in government and industry. Mobilising the support of these alumni could well be very helpful.
- Could there be any sponsorship available? Where from? Might one of the major banks, say, be persuaded to support an appointment in farm finance? Perhaps here too alumni could be helpful.
- What opportunities are there to earn money in the farm management area to support a revival? The main options probably are full-fee courses and contract research or consultancy work. This would be possible only if staff members are able to find the time for such activities. While I suspect it is not too difficult to find money-making opportunities, my experience is that it is difficult to keep the money earned – either the university management starts to tax the extra income, or funding from the university is reduced once it is known that funds are coming in from other sources.

The road ahead

I should like to be optimistic that the farm management discipline can be revived, but fear that that may not be the reality. No doubt some work in the discipline will continue, and some of it will be excellent, but I suspect that a major revival is not attainable in the prevailing environment. If it is to be achieved, some means must be found to overcome or side-step the impediments that have hampered the discipline in recent times, notably, but not exclusively, funding problems.

When plans are blocked I have usually found it best to look for a way around the blockage, rather than to try to crash through. In other words, a degree of cunning, not to say deviousness, may be needed. If this particular hare can be started, I shall watch the chase with great interest.

References

- Alston JM, Chan-Kang C, Marra MC, Pardy PG and Wyatt TJ 2000, *A Meta-Analysis of Rates of Return to Agricultural R&D: Ex pede Herculem?*, International Food Policy Research Institute, Washington, DC.
- Anderson JR, Dillon JL and Hardaker JB 1977, *Agricultural Decision Analysis*, Iowa State University Press, Ames.
- Blagburn CH 1961, *Farm Planning and Management*, Longmans, London.
- Brennan LE and McCown RL 2002, 'Back to the future – reinventing farm management economics in farming systems research', paper presented to the 46th Annual Conference of the Australian Agricultural and Resource Economics Society, Canberra.
- Brennan L and McCown R 2003, 'Making farm management research relevant to farm management practice', invited paper presented to the 47th Annual Conference of the Australian Agricultural Economics Society, Fremantle.
- Candler W and Sargent D 1961, 'Farm standards and the theory of production', *Journal of Agricultural Economics*, 15(2):282-290.
- Charry AA and Parton KA 2002, 'Can a farm management model be developed in the context of university education and research that integrates human, economic, technical and ecological components in a sustainable manner?', discussion paper presented to Farm Management Workshop, The University of Sydney, Faculty of Rural Management, Orange.
- Charry AA, Cox R, Parton KA, Crockett J, Johnson S, Bone Z & Whiteley W 2003, 'Farm management in Australia: the way forward', Paper presented to the International Farm Management Congress.
- Chavas J-P, Chambers RG and Pope DR 2010, 'Production economics and farm management: A century of contributions', *American Journal of Agricultural Economics*, 92(2): 356–375.
- Dillon JL 1962, 'Applications of game theory in agricultural economics: Review and requiem', *Australian Journal of Agricultural Economics*, 6(2):20-35.
- Dillon JL 1965, *Farm Management as an Academic Discipline in Australia*, Inaugural Lecture, University of New England, Armidale. Also published in *Review of Marketing and Agricultural Economics*, 33(4):175-189.
- Halter AN and Dean GW 1971, *Decisions under Uncertainty with Research Applications*, Southwestern, Cincinnati.
- Kemp D and Girdwood J 2002, 'Where is farm management?' discussion paper presented to Farm Management Workshop, The University of Sydney, Faculty of Rural Management, Orange.
- Kingwell R 2002, 'Issues for farm management in the 21st Century: a view from the West', *Australasian Agribusiness Review* 10, Paper No. 6, www.agrifood.info.
- Lewis JN 1985, 'Origins and early days of the Department', in S. Bearman (ed.), *Agricultural Economics in Australia*, Department of Agricultural Economics and Business.
- Management, University of New England, Armidale.
- Liversage V 1950, 'Farm costs', *Journal of the Proceedings of the Agricultural Economics Society*, 9(1):54-62.
- Liversage V 1956, 'Accounting for Farm Management', *Journal of Agricultural Economics*, 11(4): 472-476.
- Malcolm B 2000, 'Farm management economic analysis: a few disciplines, a few perspectives, a few figurings, a few futures', Invited Paper Presented to Annual Conference of Australian Agricultural and Resource Economics Society, Sydney, 2000.
- Malcolm B 2004a, 'Where's the economics? The core discipline of farm management has gone missing!', *Australian Journal of Agricultural and Resource Economics*, 48(3):395-417.
- Malcolm LR 2004b, 'Farm management analysis: a core discipline, simple sums, sophisticated thinking', *AFBM Journal*, 1(1):45-56.
- Malthus TR 1798, *An Essay on the Principle of Population*, Johnson, London (first published anonymously).
- Martin S and Woodford K 2003, 'The farm management profession in New Zealand: where are our roots?' Invited paper presented at the 47th Annual Conference of the Australian Agricultural and Resource Economics Society, Fremantle.
- McGregor M, Rola-Rubzen F, Murray-Prior R, Dymond J and Bent M 2003, 'Farm management – bugger the roots, where is the future?', paper presented to the 47th Annual Conference of the Australian Agricultural Economics Society, Fremantle.
- Meadows DH, Meadows DL, Randers J and Behrens WW III 1972, *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*, Universe Books, New York.
- Meacham S 2009 'The farmer wants a life', *Sydney Morning Herald*, February 16.
- Mullen JD 2002 'Farm Management in the 21st century', *Australasian Agribusiness Review*, 10, Paper No. 5, www.agrifood.info.
- Phillips JM 1994, 'Farmer education and farmer efficiency: A meta-analysis', *Economic Development and Cultural Change*, 43(1):149-165.
- Ronan G 2002, 'Delving and divining for Australian farm management agenda: 1970-2010', *Australasian Agribusiness Review*, 10, Paper No. 7, www.agrifood.info.
- Selly C, and Wallace DB 1961, *Planning for Profit: A Simple Costings System to Help Farmers Meet the Challenge of Falling Prices*, BBC, London.

